Energy, Mines and Resources Canada
Énergie, Mines et Ressources Canada

CANMET
Canada Centre for Mineral and Energy Technology
Centre canadien de la technologie des minéraux et de l'énergie

MEASUREMENT OF NOISE EXPOSURE INDEX OF OPERATORS ON HAULAGE EQUIPMENT FROM THE UNDERGROUND OPERATIONS AT DENISON MINES LTD. IN ELLIOT LAKE

M.U. SAVICH

ELLIOT LAKE LABORATORY

DECEMBER 1982

This document is an unedited interim report prepared primarily for discussion and internal reporting purposes. It does not represent a final expression of the opinion of the Canada Centre for Mineral and Energy Technology (CANMET)

Ce document est un rapport provisoire non-révisé et rédigé principalement pour fin de discussion et de documentation interne. Il ne représente nullement l'expression définitive de l'opinion du Centre canadien de la technologie des minéraux et de l'énergie (CANMET)

MINERALS RESEARCH PROGRAM
MINING RESEARCH LABORATORIES
DIVISION REPORT MRP/MRL 82-143 (TR)

MEASUREMENT OF NOISE EXPOSURE INDEX OF OPERATORS ON HAULAGE EQUIPMENT FROM THE UNDERGROUND OPERATIONS AT DENISON MINES LTD. IN ELLIOT LAKE

by

M.U. Savich*

ABSTRACT

Forty measurements were taken of the haulage operators. Three measurements were rejected because workers wore their dosimeters for too short a time. From the measurements it is evident that scooptram operators, J.D.T. operators, truck drivers and bulldozer operators have L_{OSHA} between 96.2 dBA to 97.9 dBA. Only the Dux truck operators and utility vehicle operators are exposed to lower noise level from 90.4 dBA to 92.5 dBA. All operators in the haulage should be wearing ear muffs. Ear muffs in combination with ear plugs are recommended.

* Research Scientist, Elliot Lake Laboratory, CANMET, Energy, Mines and Resources Canada, Elliot Lake, Ontario.

INTRODUCTION

To evaluate vehicle operator exposure to noise, we need to classify underground mining equipment in terms of operator noise exposure. Ranking of the noisiest machines starts with Load-Haul-Dump (LHD) machines, followed by bulldozers, service trucks, tractors, etc.

From our field measurements of Noise Exposure Index (NEI), we estimated that one third of all miners are exposed to the noise from diesel powered machines, including operators and bystanders. Basic measurement of NEI was performed on 40 workers (see Appendices 1-40). Three measurements were rejected, measurements No. 5, 16 and 17, because the workers wore their dosimeters for too short a time. Readings were taken near the operators ear.

OPERATOR EXPOSURE

Data was obtained by profiling dosimeter measurements and was supplemented with information obtained from interviews with mine personnel. Table 1 summarizes the resulting log average of L_{OSHA} and the mean values and standard deviations of the average working time (min/dBA).

In Table 1 is shown the resulting rank ordering of operator on the basis of the haulage machine type in use. As is evident from this table, scooptram operators, J.D.T. operators, truck drivers and bulldozer operators have L_{OSHA} between 96.2 dBA to 97.9 dBA. Only Dux truck operators and utility truck operators are exposed to lower noise levels from 90.4 dBA to 92.5 dBA.

All operators are over-exposed.

CONCLUSION

Table 1 has been developed to apply to representative time-average noise levels to which the operators are exposed during working operations,

Table 1 - Results of L_{OSHA} and time during work day

No.	User Code	Job Code	Operation	Time (min)	L_{OSHA} (dBA)	Frequency Distribution (min/dBA)												Σ Time (min)	Note
						60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99	100-104	105-109	110-114	115-119		
1	2755	283	Scooptram Op.	480	101.4	18	18	17	16	20	14	64	37	124	151	1	0	480	CC201
2	4186	270	Scooptram Op.	465	85.4	217	53	48	39	18	17	33	41	14	0	0	0	480	CC201
3	7366	283	Scooptram Op.	480	98.1	88	18	10	6	27	43	30	35	213	10	0	0	480	CC201
4	4189	ST-5	ST-5 Operator	480	95.8	61	21	11	23	112	46	67	43	43	51	2	0	480	00307
5*	7791	SCT	Scooptram Op.	350	96.1	199	20	13	7	10	43	41	48	78	21	0	0	480	00308
6	7862	283	Scooptram Op.	480	97.3	65	18	2	6	15	32	43	126	167	6	0	0	480	00310
7	2568	283	Scooptram Op.	480	93	25	10	6	4	1	191	141	51	48	3	0	0	480	CC210
8	2568	283	Scooptram Op.	480	97.8	23	9	8	3	20	105	69	49	174	20	0	0	480	CC210
9	4110	284	Equipment Op.	480	103.8	24	8	14	7	5	2	44	54	79	230	13	0	480	CC210
10	7914	283	Scooptram Op.	480	100.8	8	6	18	24	5	10	49	70	236	54	0	0	480	30289
11	1579	283	Scooptram Op.	480	93.2	77	8	24	18	22	42	76	212	1	0	0	0	480	30PAN
12	2817	283	Scooptram Op.	478	96.5	95	24	20	20	14	15	75	66	133	18	0	0	480	30PAN
13	7827	CTI	Scooptram Op.	480	92.1	164	35	30	20	42	29	38	37	85	0	0	0	480	1SHAF
14	4272	ST-5	ST-5 Operator	480	94.8	124	21	13	15	16	16	84	70	119	2	0	0	480	00000
15	4561	SCH	Scooptram Help.	480	90.6	139	39	32	27	69	34	28	55	57	0	0	0	480	00000
			Mean	478.79	97.89	80.57	20.57	18.07	16.29	27.57	42.57	60.07	67.57	106.64	38.93	1.14	-	480	
			Std. Dev.	4	Log aver.	62.36	13.6	12.2	10.35	29.73	49.58	29.83	47.63	72.49	68.43	3.46	-	479.99	
16*	0848	213	Dux Truck Op.	153	80.7	353	28	24	25	16	24	9	1	0	0	0	0	480	00307
17*	4199	213	Dux Truck Op.	161	68.9	443	9	4	14	9	1	0	0	0	0	0	0	480	00307
18	4199	213	Dux Truck Op.	480	91	162	23	20	34	24	46	70	42	57	2	0	0	480	00307
19	4277	213	Dux Truck Op.	480	86.6	182	39	34	27	35	57	48	49	6	3	0	0	480	00307
20	4806	DUX	Dux Truck Op.	480	91.9	57	19	14	31	70	56	79	138	16	0	0	0	480	00000
21	4754	211	Dux Truck Helper	480	91	51	28	41	32	69	55	73	112	19	0	0	0	480	1SHAF
22	7519	230	J.U.T. Truck Op.	480	89.5	185	15	19	34	29	45	46	84	23	0	0	0	480	CC201
			Mean	480	90.35	127.4	24.8	25.6	31.6	45.4	51.8	63.2	85	24.2	1	-	-	480	
			Std. Dev.	-	Log aver.	67.62	9.28	11.37	2.88	22.35	5.81	15.16	40.88	19.38	1.41	-	-	480	

* Not estimated

Cont. overleaf

Table 1 - cont.

No.	User Code	Job Code	Operation	Time (min)	L_{OSHA} (dBA)	Frequency Distribution (min/dBA)												Σ Time (min)	Note
						60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99	100-104	105-109	110-114	115-119		
23	7929	281	Jarco Operator	480	96.6	80	41	29	28	52	52	36	37	55	70	0	0	480	00307
24	4449	271	J.D.T. Operator	480	97.5	48	22	14	10	6	33	51	119	171	6	0	0	480	CC201
25	7203	211	J.D.T. Operator	480	84.8	202	37	29	44	65	47	29	10	14	3	0	0	480	CC210
26	7384	283	J.D.T. Operator	478	96.3	51	22	9	17	21	81	90	58	111	20	0	0	480	20951
27	2481	211	J.D.T. Operator	480	100.6	44	10	16	13	6	29	54	64	99	145	0	0	480	28PAN
28	7384	283	J.D.T. Operator	480	98.4	21	11	10	5	10	56	64	119	169	15	0	0	480	30289
			Mean	479.67	97.42	74.33	23.83	17.83	19.5	26.67	49.67	54	67.83	103.17	43.17	-	-	480	
			Std. Dev.	0.82	Log aver.	65.32	12.89	9.02	14.29	25.59	18.65	21.7	43.92	62.1	55.52	-	-	480	
29	4139	214	Utility Veh. Op.	480	94.1	154	59	59	28	46	24	29	30	17	9	25	0	480	00307
30	4122	213	Utility Veh. Op.	480	85.9	317	33	31	9	12	32	17	9	11	5	4	0	480	CC230
31	4561	214	Utility Veh. Op.	480	93.8	93	15	14	20	36	53	104	96	26	23	0	0	480	SHAFI
			Mean	480	92.52	188	35.67	34.67	19	31.33	36.33	50	45	18	12.33	9.67	-	480	
			Std. Dev.	-	Log aver.	115.81	22.12	22.72	9.54	17.47	14.98	47.15	45.4	7.55	9.45	13.43	-	480	
32	7355	211	Truck Driver	480	97.9	82	19	7	7	7	13	65	90	188	2	0	0	480	CC210
33	7355	211	Truck Driver	480	99.8	53	14	14	3	3	45	54	68	120	106	0	0	480	CC210
34	7618	TRD	Truck Driver	480	100.9	46	20	27	15	8	28	73	54	78	117	14	0	480	00000
35	7409	GEO	U/G Equip. Op.	480	91.8	124	48	18	24	31	34	48	108	45	0	0	0	480	00000
36	2614	211	Equip. Operator	480	91	53	14	19	36	79	87	82	89	19	2	0	0	480	CC210
			Mean	480	97.89	71.60	23	17	17	25.6	41.4	64.4	81.8	90	45.40	2.8	-	480	
			Std. Dev.	-	Log aver.	32.41	14.25	7.31	13.32	31.81	27.99	13.79	21.03	66.55	60.47	6.26	-	480	
37	7759	212	D-6 Operator	480	98.8	89	3	6	4	47	18	34	52	197	25	5	0	480	00310
38	7953	120	D-6 Operator	480	92.9	117	34	49	17	11	6	41	162	43	0	0	0	480	30300
39*	7387	212	Operator	369	95.4	184	24	14	18	11	35	49	59	73	9	4	0	480	PAN26
40	4356	212	Grader Operator	480	94.8	35	30	20	7	10	33	69	239	36	1	0	0	480	2SHAF
			Mean	480	96.22	80.33	22.33	25	9.33	22.67	19	48	151	92	8.67	1.67	-	480	
			Std. Dev.	-	Log aver.	41.68	16.86	21.93	6.81	21.08	13.53	18.52	93.98	91	14.15	2.89	-	480	

* Not estimated

rather than to the maximum levels that may occur over short periods. This is the advantage of integrating noise dosimeters. All operators in haulage should be wearing ear muffs. For better protection ear muffs in combination with ear plugs are recommended.

APPENDIX A

MEASUREMENT OF NOISE EXPOSURE INDEX OF OPERATORS ON HAULAGE EQUIPMENT IN THE UNDERGROUND MINES WITH FULL INFORMATION: PERCENT DOSE (CURRENT AND CUMULATIVE): ARITHMETIC MEAN: STANDARD DEVIATION: VARIANCE: AMPLITUDE DISTRIBUTION (GRAPHICAL AND NUMERICAL): AND TIME HISTORY (GRAPHICAL).

(1) (1)

[illegible]

70	75	73	70	72	69	63	66	66	64	65	69	51	72	71	71
72	73	76	70	69	72	68	66	65	74	76	76	56	83	90	91
91	91	93	92	91	90	91	93	95	96	100	100	101	97	97	10?
97	95	98	96	91	70	85	96	97	96	96	102	107	109	110	10?
96	104	1?3	97	97	95	96	105	105	105	105	104	1??	97	94	1??
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	103	[illegible]	[illegible]
103	104	1??	100	95	73	91	10?	101	90	90	91	96	90	10?	10?
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	102	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
101	105	105	93	92	101	105	102	1?3	106	1?5	106	1?5	106	105	104
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
99	[illegible]	[illegible]	92	[illegible]	91	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
106	85	101	106	10?	10?	106	105	106	103	91	82	92	102	105	10?
104	[illegible]	102	103	[illegible]	89	102	105	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
65	77	90	104	107	10?	1??	98	105	102	1?4	104	10?	106	105	10?
107	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	107	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	107	[illegible]	[illegible]
104	95	105	107	104	10?	105	107	1??	107	95	100	106	105	104	10?
106	107	105	105	105	104	107	106	103	103	105	107	105	105	104	105
107	106	104	104	107	104	102	106	105	107	107	107	101	89	95	90
103	72	76	60	62	61	65	60	72	70	66	60	63	66	61	65
64	64	61	69	64	86	89	81	80	91	71	77	65	65	84	72
77	77	73	84	72	77	79	76	82	82	82	85	60	65	72	60
78	85	93	97	95	92	96	98	94	98	86	66	61	64	73	75

%EOF

ENTER [illegible] ([illegible]) : [illegible]
ENTER SITE CODE (5 CHARS) : C0201
ENTER USER CODE (4 CHARS) : 2755

ENTER JOB CODE (3 CHARS) : 2?3

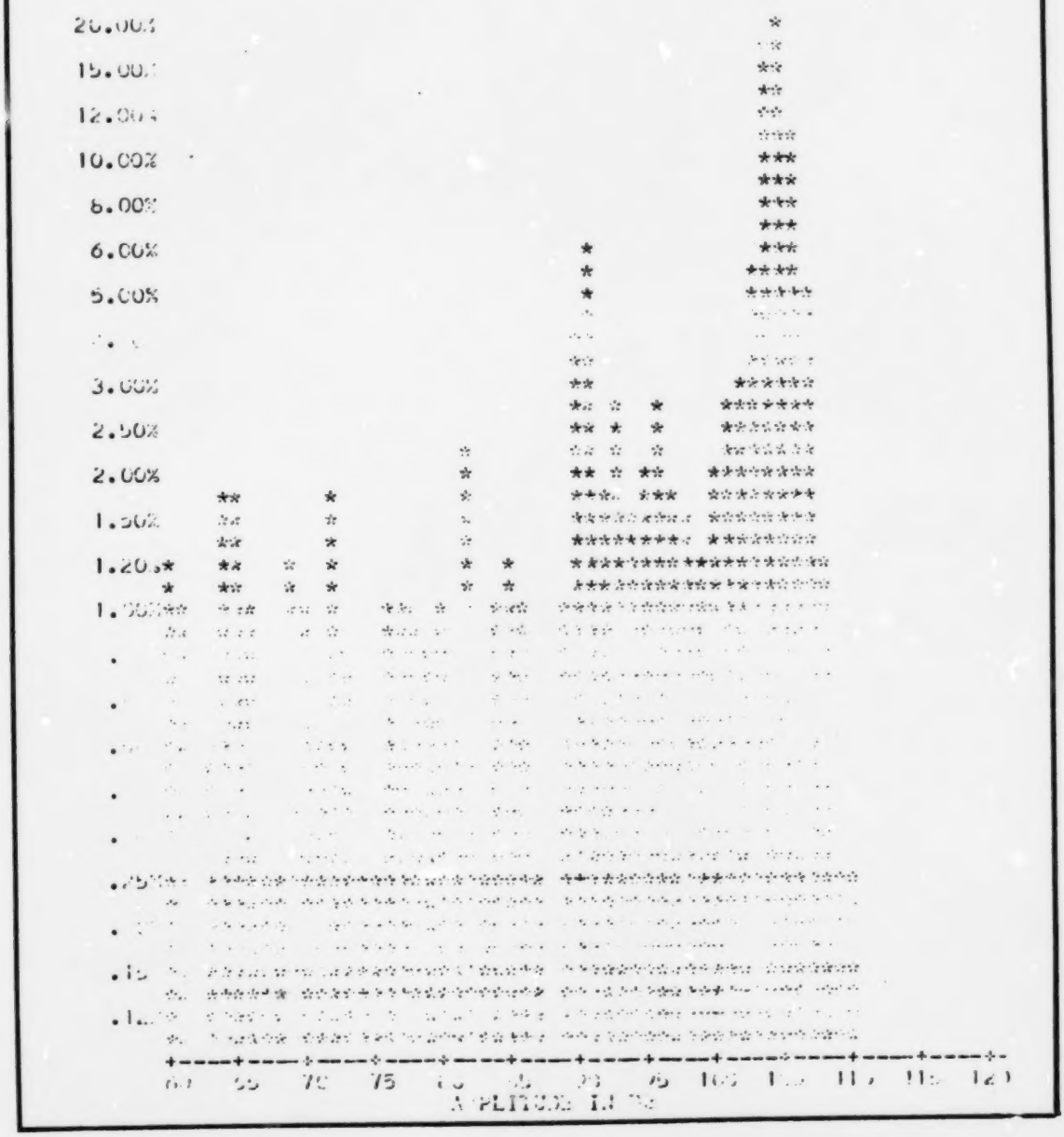
DATA LOGGED : 10 JULY 1979 DATA ANALYZED : 11 SEPT 1979

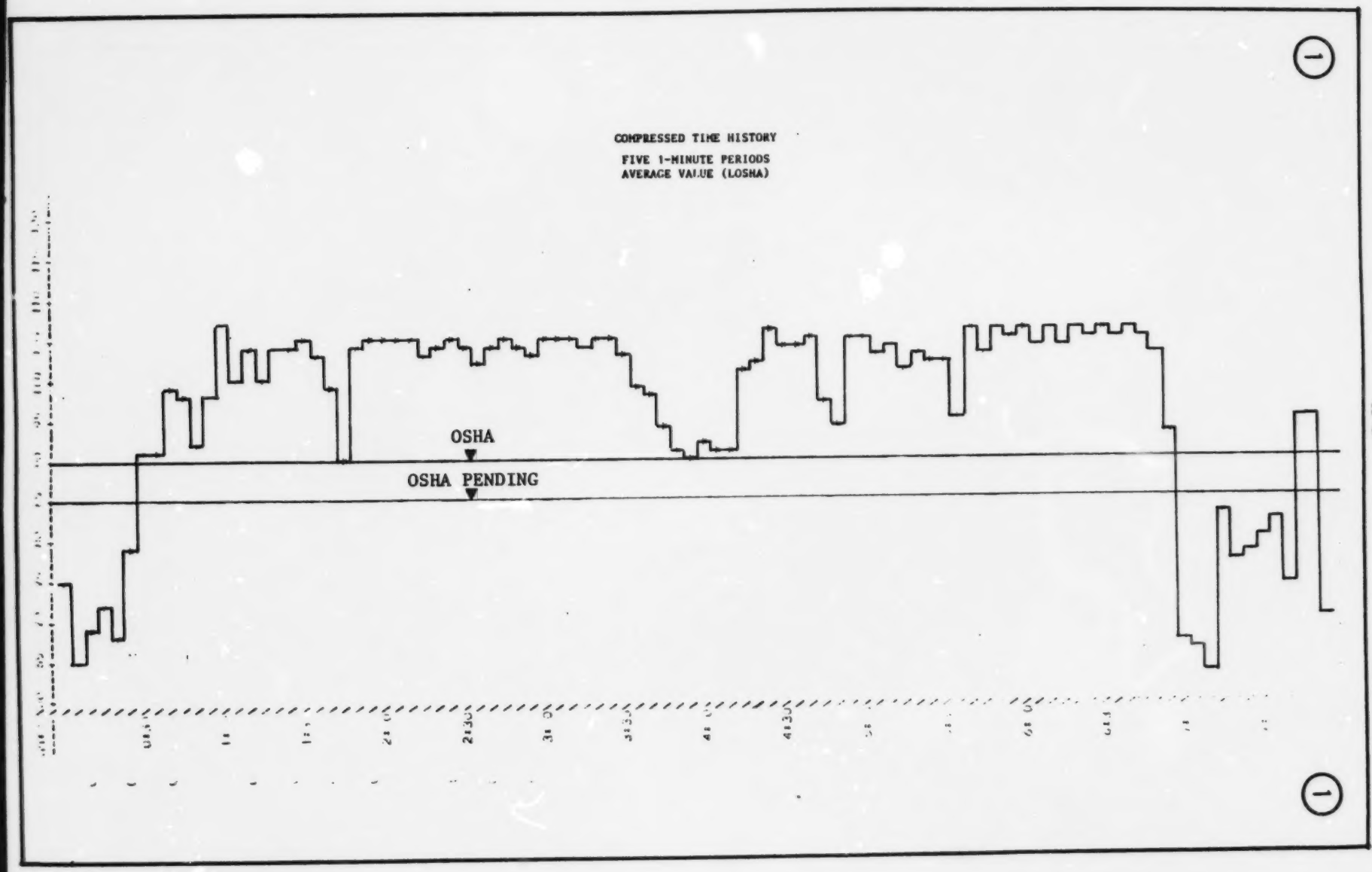
[illegible]

PERIOD = 1 [illegible]

[illegible]

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
18	3.8	60 TO 64
18	3.8	65 TO 69
17	3.5	70 TO 74
16	3.3	75 TO 79
20	4.2	80 TO 84
14	2.9	85 TO 89
64	13.3	90 TO 94
37	7.7	95 TO 99
124	25.8	100 TO 104
151	31.5	105 TO 109
1	.2	110 TO 114
0	0.0	115 TO 119
TOTAL NO. OF DATA POINTS = 480		




COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING

(2) (2)

PLACE TAPE IN READER THEN TYPE A "SPACE" AND A "RETURN"

```
 1  26  80  1213    60    64     4     1
  24600      111883   405
 68  70  64  74  69  67  68  77  78  71  73  76  73  70  68  76
 73  65  62  75  79  76  78  76  74  68  75  92  91  90  91  91
 94  92  92  92  91  91  91  93  92  98  97 102 100  98  96 101
102 103 100  98  96  88  97  96  99  99  90  86  74  60  64  64
 66  66  64  60  63  82  71  81  92  69  60  60  79  78  81  71
 82  85  72  76  70  70  61  90  78  62  76  81  82  95  93  95
 92  90  91  93  95  93  95  96  95  97  92  93  97  95  84  85
 80  81  74  73  72  77  77  78  75  78  73  86  95  97  95  95
101 101 100  96  96  98  95  98  99 102 100 100 100  95  95  96
 97 101  96  94  97  96  93  94  94  95  99  97  96  95  85  80
 81  82  91  87  85  86  89  92  93  95  94  92  90  90  80  81
 60  60  64  67  60  60  60  60  60  60  60  60  60  60  60  60
 60  66  61  61  61  71  75  72  62  60  62  60  60  60  66  64
 70  60  60  60  62  67  77  80  80  80  81  80  81  80  80  80
 60  60  60  60  60  60  63  63  61  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  61  60  60  60  60
 60  60  60  61  60  60  60  61  60  60  60  60  63  72  79  77  69
 76  74  75  76  72  65  68  60  61  60  60  62  61  61  73  75
 67  71  75  76  63  71  61  66  53  77  66  66  65  62  60  67
 64  62  60  60  65  61  61  66  64  65  62  68  63  62  71  69
 63  64  74  86  85  82  69  70  63  73  60  60  61  62  60  60
 60  60  63  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  64  60  61  60  73  69  76  68  79  84  86
 64  61  62  61  60  60  60  65  60  60  60  60  64  62  60  65
 60  66  64  65  63  60  62  65  63  73  66  72  62  60  63  76
 77  68  68  64  73  66  71  62  67  61  62  74  80  60  63  72
 74  70  66  71  61  60  65  73  64  72  71  74  68  72  62  62
 60  60  64  71  64  69  69  62  64  61  70  63  61  60  65  61
 63  63  60  65  60  61  71  94  87  87  76  81  81  80  77  79
 78  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
%EOF
```

ENTER LOG DATE (DD/MO/YR) : 11/07/79
ENTER SITE CODE (5 CHARS) : CC201
ENTER USER CODE (4 CHARS) : 4186
ENTER JOB CODE (3 CHARS) : 270

DATA LOGGED : 11 JULY 1979
LOGGER : 98-301726
SERIAL NUMBER : 1213
BASELINE : 00 DE
DATA ID : A0
SAMPLING RATE : 4/SEC
TEST DURATION = 78.250

DATA ANALYZED : 12 SEPT 1979
SITE CODE : CC201
JOB CODE : 270
USER CODE : 4186
TAPE SPOOL : 00 DE
TOTAL SAMPLES = 111883
STARTING AT = 14.2500

THE HISTORY ANALYSIS

NOISE EXPOSURE LEVEL (Ce.I.) CALCULATIONS
Ave. Base Noise Level =
TOT. TIME = / =
EXCHANGE CODE (3 DB) = 3.00
EXCHANGE (5 DB) = 5.00
CRITERION SOUND PRESSURE LEVEL = 90
PLATEN = 1 1.000E-05

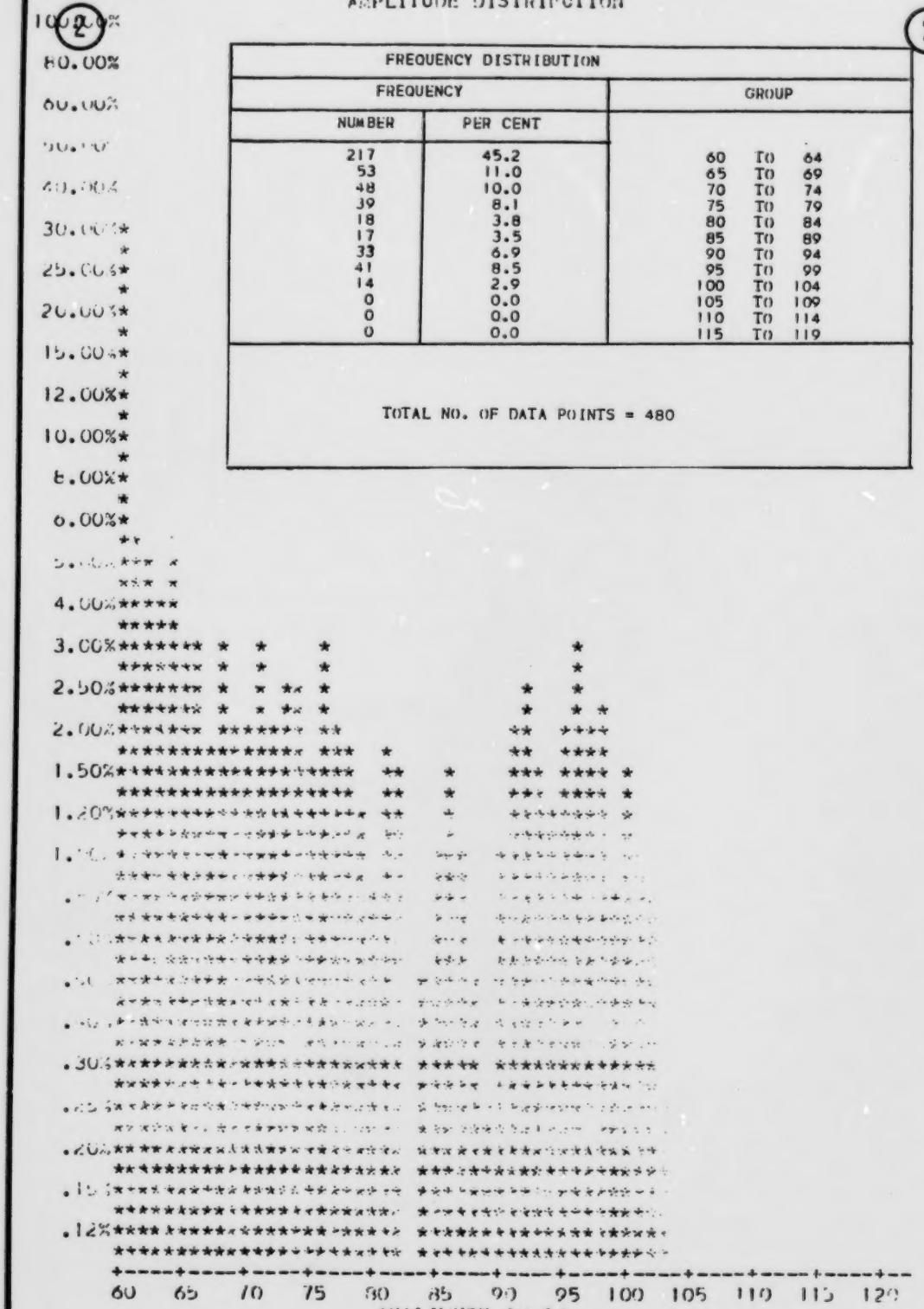
HIST	LOG A		EXPOSURE	
ADD				
1	24.1	24.1	1.000	1.000
2	24.2	24.2	24.169	25.169
3	94.3	91.7	22.122	47.291
4	24.1	24.1	.211	47.502
5	24.1	24.2	.000	47.502
6	24.2	24.2	.000	47.502
7	70.3	69.0	.413	47.915
8	69.3	69.4	1.233	51.150

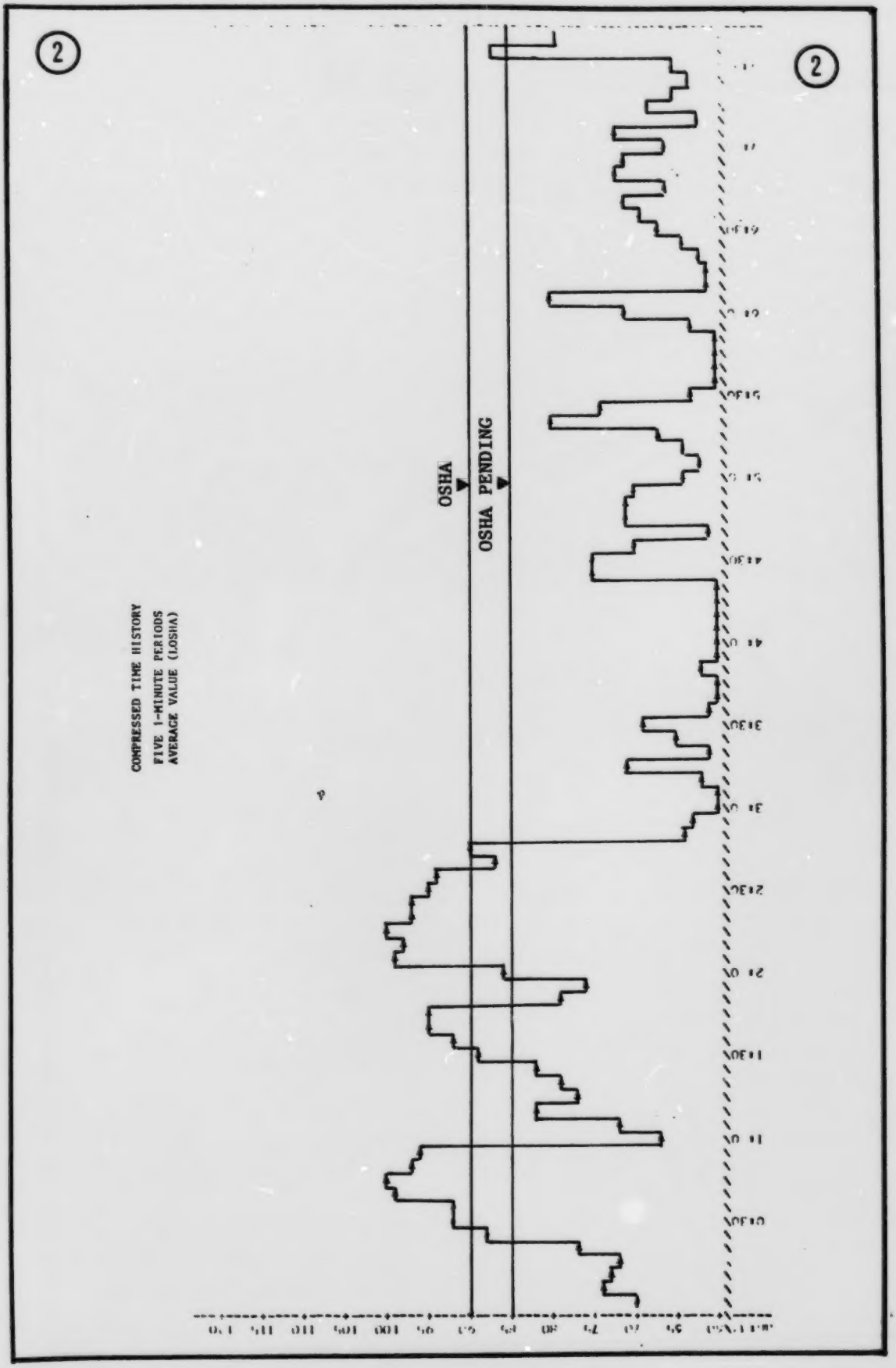
LOG A AVG. = 1.000
ACTUAL TIME = 67.750
DOSE DEVIATION = 1.000
DOSE % = 1.000

AMPLITUDE DISTRIBUTION

(2)

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
217	45.2	60 TO 64
53	11.0	65 TO 69
48	10.0	70 TO 74
39	8.1	75 TO 79
18	3.8	80 TO 84
17	3.5	85 TO 89
33	6.9	90 TO 94
41	8.5	95 TO 99
14	2.9	100 TO 104
0	0.0	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119
TOTAL NO. OF DATA POINTS = 480		




2
2
OSHA
OSHA PENDING
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)

```
PLACE TAPE IN READER THEN TYPE A "SPACE" AND A "RETURN"
  1  20  80  1221   60   64    4    1
    93      115200  480
  64  60  60  60  61  60  60  64  60  60  62  61  60  60  62  62
  60  60  64  65  60  62  61  60  65  60  60  60  67  77  64  72
  60  60  62  61  64  66  67  60  68  69  73  61  61  60  62  60
  67  65  64  72  62  86  69  89  90  92  91  90  89  88 100  99
  97  99  99  98  99 100  99  95  91  89  87  82  99  87  94  88
  80  79  79  97 101 102  97  90  83  87  90  86  86  96  91  91
  87  85  93  88  85  91  92  97 101  99  96  86  87  86 102 102
 104 102  91  86 102 103 101 103 102 102 103 103 102  99 102 102
 103 101 101 103 103 102 103 104 101  99  93  89 102 103 103 102
 103 102 103 103 103 101 102  94  93  79  76  76 101  98  93 101
  93  88  94  99 102 100 104 103 105 104 104 103 102 103 105 104
 102 103 104 102 102 105 104 104 104 104 103 103 100  93 103 105 102
 103 103 104 102  94 103 102 103 104 103 103 103  95 103 105 104
 103 103 104 103 101 103 104 103 102 104 104 102 104 104 103 103
 104 103 102 102 105 104 103 103 104 102 102 104 103 102 104 104
 101 101 104 104 101 103 104 102 100  99  94  98  93  91 101 104
 104 102 102 103 104 103 100 103 104 103 102 103 101  85  94  84
  84  84  89  85  96 103  91  83  83  83  83  97  95  98 104 105
  98  84  76  60  60  60  60  60  60  60  60  60  60  60  60  60
  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
  63  60  60  86  89 101  93 100 103  87  80  83   3  83  84  89
  83  83  83  80  73  70  83  98 101 100 103 103 103 102 103 104
 103 102 102 101 105 103 102 103 103 104 100 101 102 105 103 102
 103 103 104 102 101 103 104 103 100 103 104 102 101 101 104 103
 101  97 101 103 104 101 101 101 104 103 102 102 103 104  96  80
  83  84  95 101 101 105 104 102 101 102 101 103 104 102 100 100
 104 103 101 101 103 101  84  85 104 104 104 100  86  86  86  86
 102  85  63  60  66  86  72  60  66  60  60  60  60  73  79  90
  91  92  93  92  92  95  96  95  97  99 101  95  96  99  85  66
  68  66  63  61  60  68  81  86  85  77  62  60  60  60  60  72
&EOF
```

ENTER LOG DATE (DD/MM/YR) : 23/07/79 .
ENTER SITE CODE (5 CHARS) : 32860

ENTER USER CODE (4 CHARS) : 7366
ENTER JOB CODE (3 CHARS) : 263

DATA LOGGED :23 JULY 1979 — DATA ANALYZED : 17 SEPT 1979

LS
SERIAL NUMBER : 1221
BASELINE : 60 DB
DYNAMIC RANGE : 64 DB
SAMPLING RATE : 4/SEC
TEST DURATION : [illegible]

USER CODE : 7366
THRESHOLD : 40 DB
TOTAL SAMPLES : 115200
STARTED AT : [illegible]

TIME HISTORY ANALYSIS

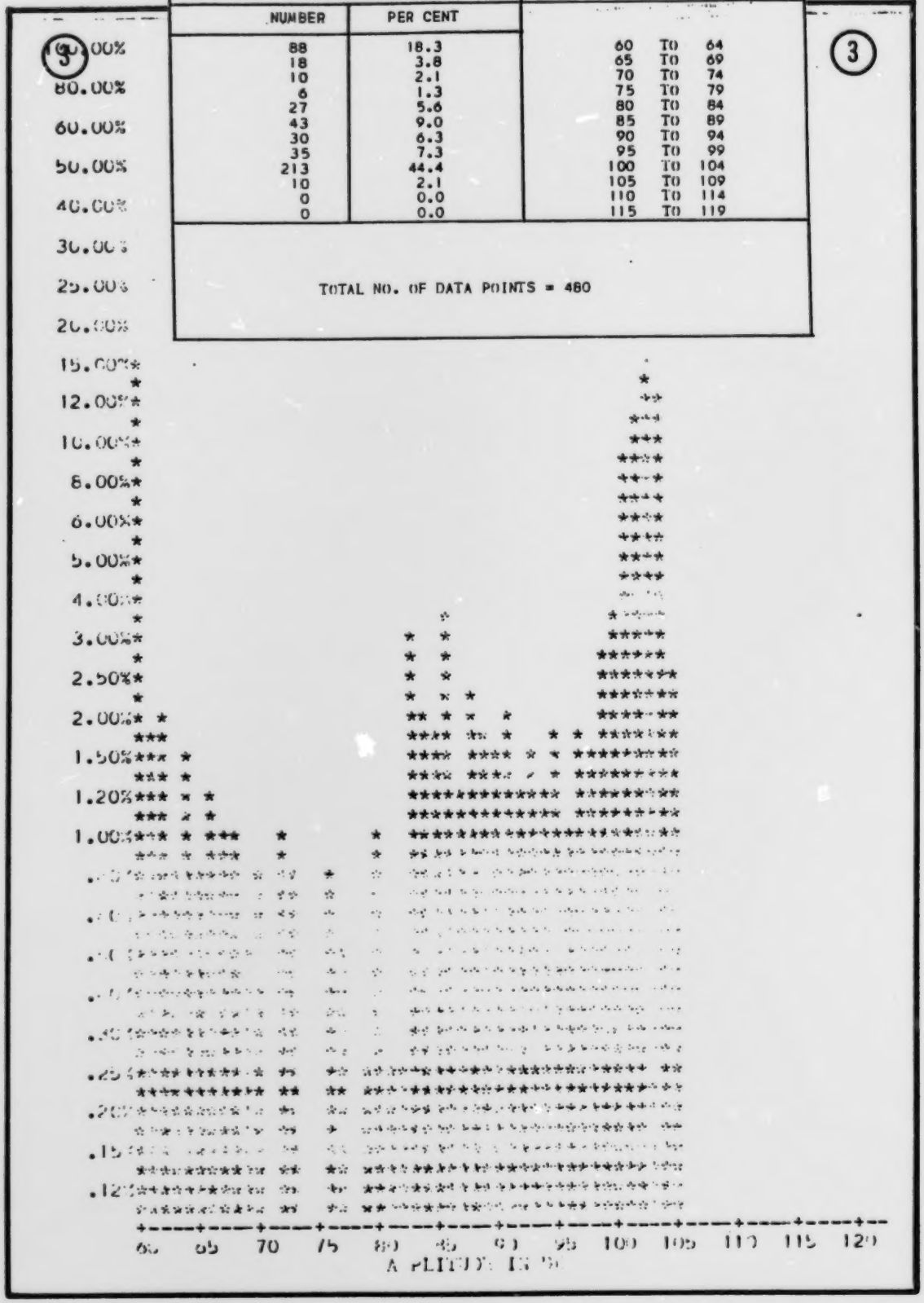
NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
ARE BASED ON THE FOLLOWING:
TOTAL TIME = 30 [illegible] MIN
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CUTOFF) LEVEL = 0 DB
NUMBER OF COMPUTATIONS = 480
PERIOD = 1 MINUTES

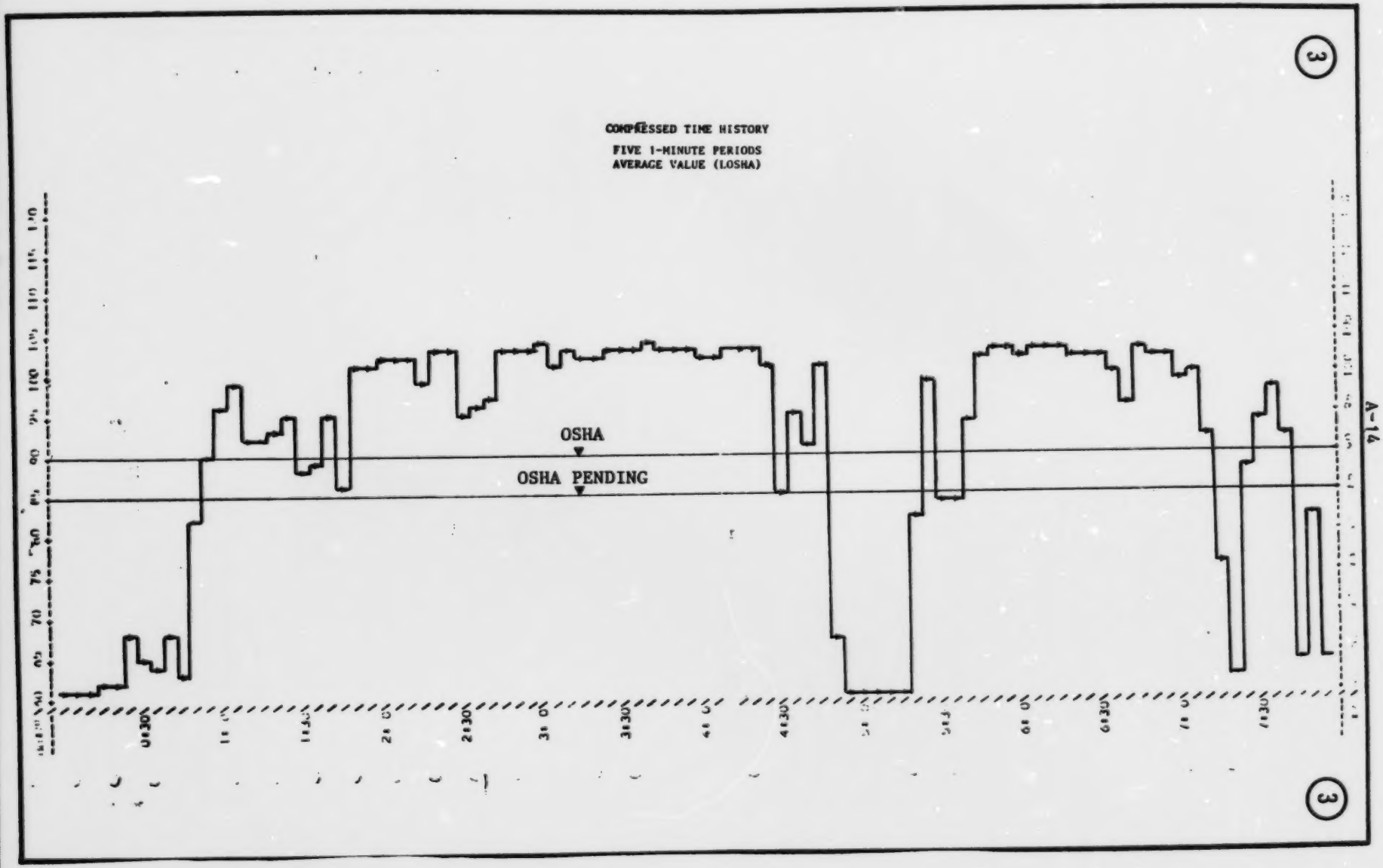
TIME	LOCAL		NOISE	
HOUR	CURRENT	CUMULATIVE	CURRENT	CUMULATIVE
1	75.7	75.7	1.731	1.73
2	99.5	99.9	26.612	28.34
3	101.2	101.1	99.[illegible]	[illegible]
4	102.9	102.5	75.237	102.[illegible]
5	98.3	98.5	39.313	202.15
6	94.9	98.0	24.676	226.82
7	101.9	99.7	66.969	291.[illegible]
8	92.1	98.1	16.733	308.57

MIN. COMP. = 60 DB — MAX. COMP. = 105 DB
ARITHMETIC MEAN = 98.03
STD. DEVIATION = 16.06
VARIANCE =256 DB

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
88	18.3	60 TO 64
18	3.8	65 TO 69
10	2.1	70 TO 74
6	1.3	75 TO 79
27	5.6	80 TO 84
43	9.0	85 TO 89
30	6.3	90 TO 94
35	7.3	95 TO 99
213	44.4	100 TO 104
10	2.1	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480




3
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING
3

(4)

```
PLACE TAPE IN READER THEN TYPE A "SPACE" AND A "RETURN"
  1  26  50  1213   60   64    4    1
     450     115200  480
 67  66  68  77  76  71  72  65  65  67  67  63  66  70  68  63
 66  63  61  66  75  79  79  67  81  78  77  75  79  79  76  80
 81  79  79  77  80  78  81  75  81  82  80  75  82  80  80  80
 72  60  65  68  63  61  63  73  68  69  69  62  61  60  62  60
 60  61  60  61  60  61  60  60  62  64  60  64  60  63  62  60
 60  60  61  60  66  63  64  62  62  62  61  60  60  60  60  60
 60  60  60  60  60  60  60  64  60  63  60  60  65  62  60  61
 [illegible]
 94  90  92  84  73  84  83  92  85  86  87  89  [illegible]  91  91  91
 94  89  94  95  94  96  94  95  85  91  94  85  83  96  90  94
 [illegible]
100  98  92  94  94  99  97 100 101 101 102 100  99  95  97  92
100  86  98  96  96  99  99  98  97  93  92  96 100  96  98  90
 75  76  77  78  79  79  82  81  81  80  81  82  81  80  95 100
 94  92 101 103 101 101 101 100  99  99  97  98  99  94  87  84
 88  93  89  89  88  87  91  83  83  83  84  84  83  83  83  83
 83  83  83  83  83  83  87  84  83  83  83  83  83  83  83  83
 83  83  90  84  84  84  83  83  85  95  89  83  83  83  83  83
 83  83  83  83  83  83  83  83  83  84  83  89  96  84  95  84
 83  83  83  85  85  84  83  83  83  83  83  90  83  90  96  86
 96  85  83  83  83  83  83  84  83  83  83  83  83  83  84  85
 91  83  85  84  84  83  83  83  83  83  85  94  94  95  94  84
 89  91  86  87  99 102 105 107 102  97  97  95  94 102 105  98
102 104 103 102 105 109 108 107 105 109 106 107 107 106 102 108
107 107 102 105  91  89  91  92  90  90 104 106 104 105 107 107
108 108 107 107 107 107 102  93  93  92  96 103  98 105 109 109
106 110 109 107 105 107 107 105 104  92 103 104 101 103 107 110
102 102  94  90  91  90  90  90  89  89  90  90  90  90  93 106
107 104 104 108 109 107 107 105 106 100 106 107 107 107 107  94
%EOF
```

(4)

ENTER LOG DATE (DD/MM/YR) : 13/09/79

ENTER SITE CODE (5 CHARS) : 00307
ENTER USER CODE (4 CHARS) : 4189

ENTER JOB CODE (3 CHARS) : ST5

DATA LOGGED : 13 SEPT 1979
LOGGER : [illegible]-301/26
[illegible]

DATA ANALYZED : 27 SEPT 1979
SITE CODE : 00307
[illegible]

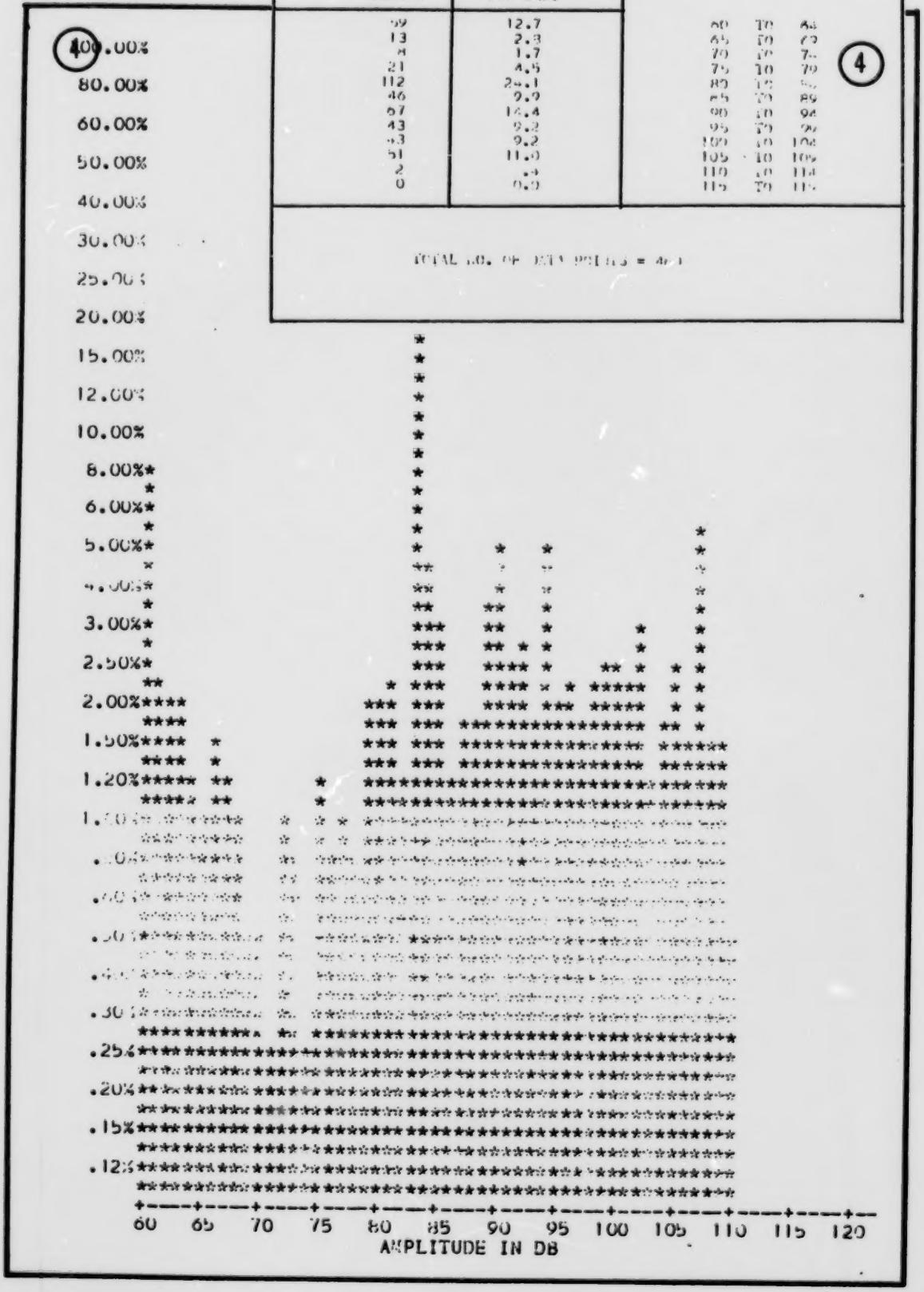
[illegible] ANALYSIS

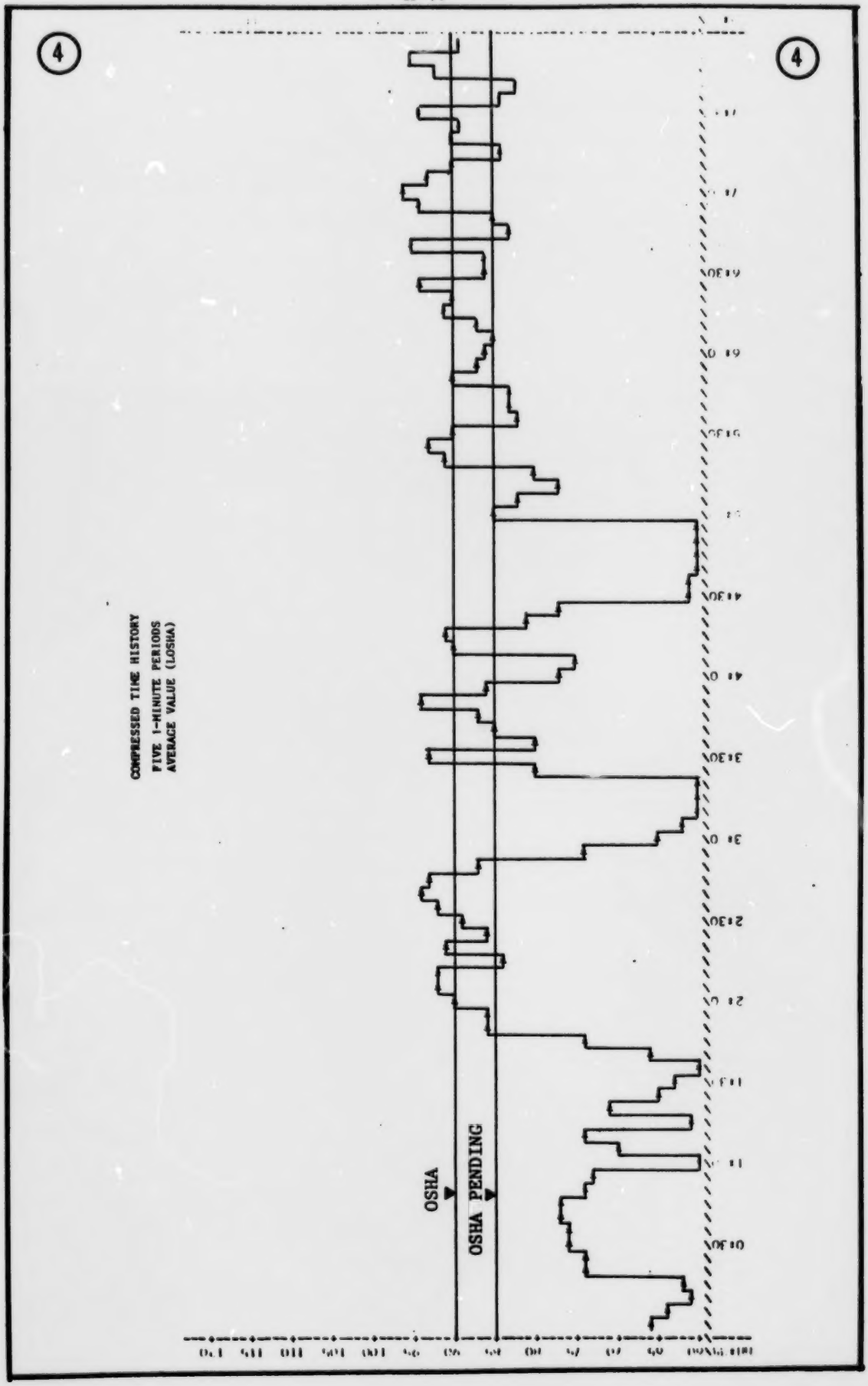
[illegible] CALCULATIONS
[illegible]
[illegible]
[illegible]
[illegible]
NUMBER OF COMPUTATIONS = 480
PERIOD = 1 MINUTES

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	79.1	79.1	1.575	1.58
2	64.4	71.5	.360	1.94
4	90.7	[illegible]	13.714	15.65
4	95.7	[illegible]	27.717	43.37
5	91.6	[illegible]	15.527	58.89
6	85.9	89.1	7.056	65.95
7	102.8	94.4	73.731	139.7
8	103.0	99.5	84.510	224.39

[illegible] COMP. = 60.09 MAX. 30 P. = 110 D.
ALTO. PTIC BEAM = [illegible]
STD. DEVIATION = 14.98
[illegible]

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
99	12.7	60 TO 64
13	2.8	65 TO 69
8	1.7	70 TO 74
21	4.5	75 TO 79
112	24.1	80 TO 84
46	9.9	85 TO 89
67	14.4	90 TO 94
43	9.2	95 TO 99
43	9.2	100 TO 104
51	11.0	105 TO 109
2	.4	110 TO 114
0	0.0	115 TO 119
TOTAL NO. OF DATA POINTS = 465		




4
4
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING

(5)

```
PLACE TAPE IN READER THEN TYPE A 'SPACE' AND A 'RETURN'
  1  26  80  1216    60    64     4     1
   42190      84100  350
  63  63  61  60  73  69  66  65  63  60  60  62  64  68  60  69
  65  60  74  73  69  70  74  68  63  65  65  64  69  68  68  70
  83  69  80  86  86  90  95  96  96  88  88  92  92  92 101 100
 101  85  98 102 104 101 101 106 105 105 105 107  90  62  93 105
 106 100  93  92  75  60  60  83  60  60  61  60  60  60  65  60
  60  60  62  60  87  94  85  71 100 105  91  96  99 101 104 106
 104 105 103 102 104 101 103 101 105 101  88  90  89  84  88  98
 105 103 102 100  98 104 100 101 106 105 101 102 103 103  98 104
 102  97 106 106 104  93 103  96 101 102  90  89  88  91  92  95
  86  87  87  87  89  88  96  92  89  98  96  97  87  86  87
  89  91  83  88 100  88  88  99  88  89  91 102  94  90  87  97
  96  95  98 101  95  93  94  93  93  92  95  90  95 100 104  99
  97  98  96  87  88  88  88  66  76  76  83 102  94  94  73  94
  99 102  97  94 103 100  90  72  95  94  94 103 105  99  95  99
  99 100  95 100 104 106  99  92  87 102 103 104 103 101 101 105
 102  95  62  60  60  61  78  60  60  60  60  76  60  60  60  60
  60  72  67  60  73  78  60  76  60  60  60  60  60  60  60  60
  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
  83  61  74  60  87  90 100  94  96  90  90 100 102 103 101  94
 100  97  66  67  83  80  80  65  61  87  71  96 102 101 102  97
  95 102 102 102 103 101  97  95  90  89  99  94 107  98  94  94
  94  95  98 100 102 101 102 102 101 101 100  95 102 102  60  60
  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
*EOF

ENTER LOG DATE (DD/MM/YR) : 15/08/79

ENTER SITE CODE (5 CHARS) : 00308
ENTER USER CODE (4 CHARS) : 7791

 ENTER JOB CODE (3 CHARS) : SCT


   DATA LOGGED :15  AUG 1979          DATA ANALYZED : 21 SEPT 1979
        LOGGER : DR-301/24                 SITE CODE : 00308
SERIAL NUMBER : 1216                        JOB CODE : SCT
      BASELINE : 60 DB                     USER CODE : 7791
DYNAMIC RANGE : 64 DB                       THRESHOLD : 80 DB
SAMPLING RATE :  4/SEC                TOTAL SAMPLES =   84100
TEST DURATION =   5950:25              STANDBY TIME =  2199147

                TIME HISTORY ANALYSIS

NOISE EXPOSURE LEVEL INDEX (N.E.L.) CALCULATIONS
ARE BASED ON THE FOLLOWING
100% DOSE = 90 DB / 8 HRS
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CUTOFF) LEVEL = 80 DB
  NUMBER OF COMPUTATIONS = 350
PERIOD =  1 MINUTES

TIME          LOSHA                          %DOSE
HOUR    CURRENT   CUMULATIVE        CURRENT   CUMULATIVE
   1      93.9        93.9          21.569      21.56
   2      95.0        96.2          37.883      59.45
   3      97.2        96.6          34.047      93.49
   4      97.9        96.9          37.254     130.75
   5      98.7        95.6           5.208     135.96
   6      98.4        96.1          33.413     169.37
MIN. COMP. =  60 DB                MAX. COMP. = 108 DB
ARITHMETIC MEAN =  86 DB
STD. DEVIATION =  15 DB
VARIANCE =256 DB
```

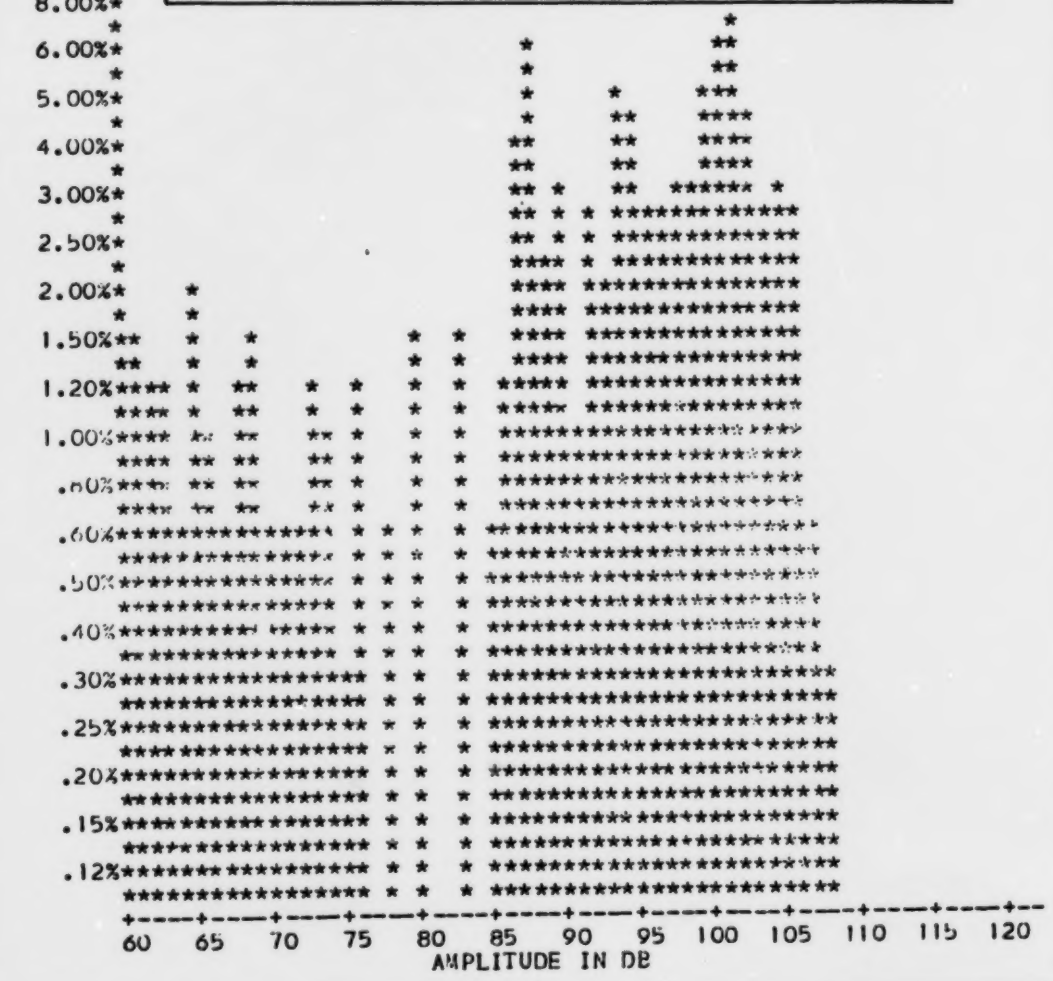
(5)

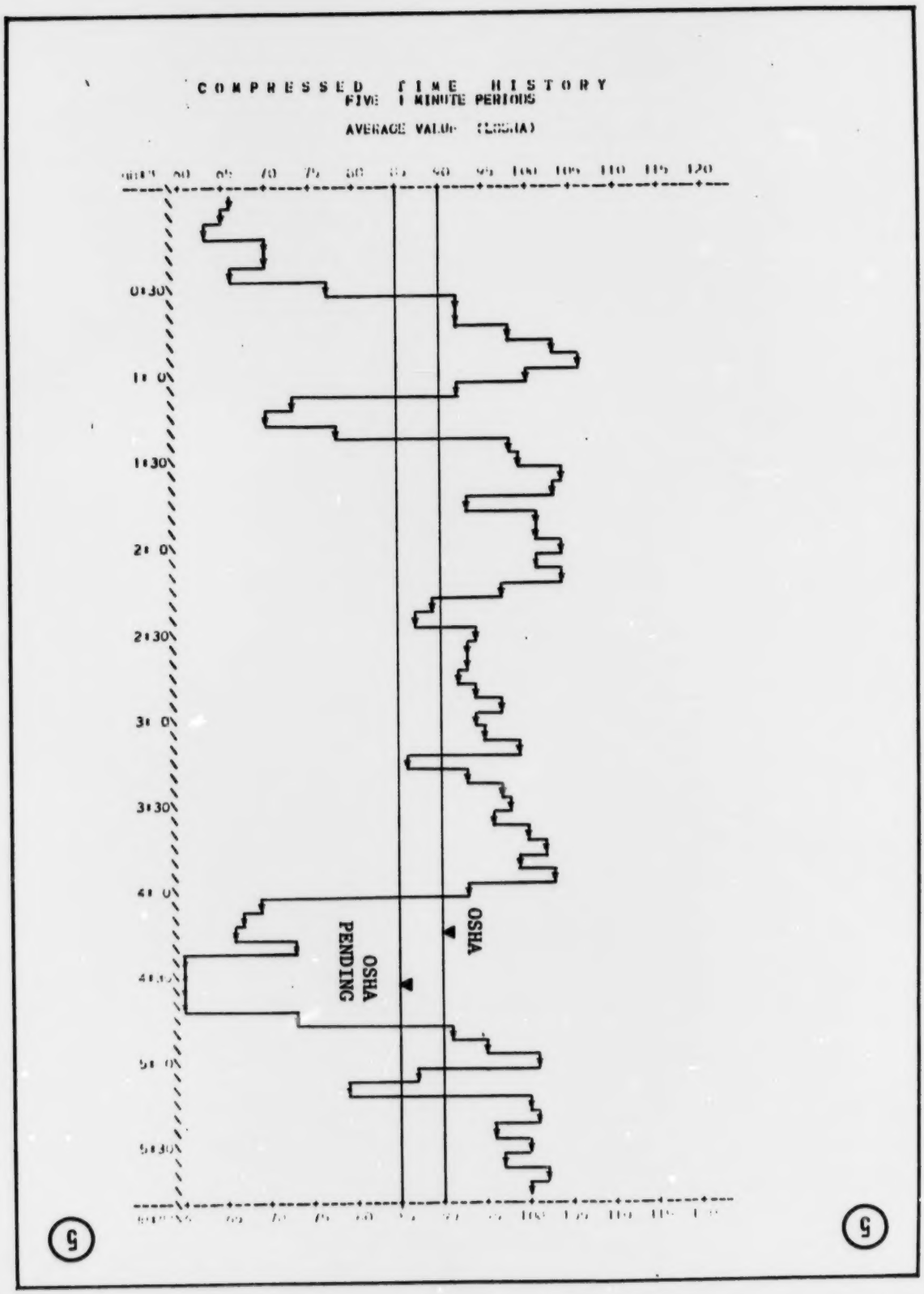
AMPLITUDE DISTRIBUTION

(5) (5)

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
199	41.5	60 TO 64
20	4.2	65 TO 69
13	2.7	70 TO 74
7	1.5	75 TO 79
10	2.1	80 TO 84
43	9.0	85 TO 89
41	8.5	90 TO 94
48	10.0	95 TO 99
78	16.3	100 TO 104
21	4.4	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480




COMPRESSED TIME HISTORY
FIVE 1 MINUTE PERIODS
AVERAGE VALUE (LOUDNESS)
0:30
1:00
1:30
2:00
2:30
3:00
3:30
4:00
OSHA
OSHA
PENDING
5:00
5:30
5
5

(6)

```
PLACE TAPE IN READER THEN TYPE A 'SPACE' AND A 'RETURN'
  1  26  80  1214    60    64     4     1
        48      115200   480
  60  60  60  60  60  69  66  66  60  60  62  63  68  60  60  60
  60  65  65  60  67  61  60  60  60  65  64  60  60  60  63  61
  61  60  66  61  65  60  60  64  60  70  77  75  78  96  91  90
  82  89  91  82  82  90  81  93  92  65  67  79  67  87  98  64
  60  60  60  83  82  81  60  60  60  94  91  92 103 104 103 105
 104 104  92  87  86  85  89  89  94  91  91  91  92  91  92  89
  89  98  96 101  96  97  84  86 100 105 104 103 104 104  97  94
  94  92  93  97  93  95  96  95  92  94  87  95  89  97  93 101
 103 103 103 102 102 102 103  97 101 101 102  99 101 101 101 102
 102  98 100 100 100  99  98 101  99 101  94  95 100 100 101 100
 100 100 100 101  99 100  98 100 100  99  99  92  88  98  98 100
  98 100  99  98  99  98  98  99  95  99  99  99 100 100 100  99
  99  95  64  65  64  60  85  82  96  99  99  98 102 104  97  89
  64  63  67  69  88  85  99 102 105  99  94 104 103  98  97  97
 100  99  90  89  90 100  89  88  88  95  98  97  99  96 103 103
 102  94  97  82  81  93 102  92  98 102 101  97  93  95  99  99
  98  98 106  99 101  96  99 100  99  98  96  82  81  68  62  60
  60  60  60  60  60  60  64  72  60  60  64  64  61  60  65  90
  99  98  97  98  87  90  86  85  85  99  97  97  97  98 100 102
 102 100 100  98 100 102  98  98  90 100  99  99 100 102 102  99
 102 101  99  99  98  92  60  81 100 102 105 102 101 101  96  87
  97  96 101 101 102 102 105 104 103 100  98  89  95  96 100  99
 100  82  85  95 102 101 100 102  99  98 102 100  98  88  89  97
 100 101 102 102 101 101 101  98  95 102 100 100 100  98 101 102
 102  86 101 102  98 101 101  99 102  98  95  91  92  95 100 103
 102  99 100 103 101 102 100 101 101  97 101  98 100 101 101 101
 102 100 102 102 102 101 100 101  99 100 101 101 102 100  96  98
  99 100 100 102 102 102 100 101 101  98 102 100 100 100  98  98
 102  97  94 101 102  98 101 101  98 100  99  93 103 103 101 101
  99 102  97  60  60  60  60  60  61  98 100  99  77  78  92  88
%EOF
```

(6)

```
ENTER LOG DATE (DD/MM/YR) : 20/08/79
ENTER SITE CODE (5 CHARS) : 00310
ENTER USER CODE (4 CHARS) : 7862
 ENTER JOB CODE (3 CHARS) : 283
```

```
   DATA LOGGED :20  AUG 1979          DATA ANALYZED : 25 SEPT 1979
      LOGGER : DB-301/26                  SITE CODE : 00310
SERIAL NUMBER : 1214                       JOB CODE : 283
    BASELINE : 60 DB                      USER CODE : 7862
DYNAMIC RANGE : 64 DB                     THRESHOLD :  80 DB
SAMPLING RATE :  4/SEC                TOTAL SAMPLES =  115200
TEST DURATION =   0: 0: 0              STANDBY TIME =   0: 0:17
```

TIME HISTORY ANALYSIS

NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
ARE BASED ON THE FOLLOWING
100% DOSE = 90 DB / 8 HRS
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CLOSE) LEVEL = 80 DB
NUMBER OF COMPUTATIONS = 480
PERIOD = 1 MINUTES

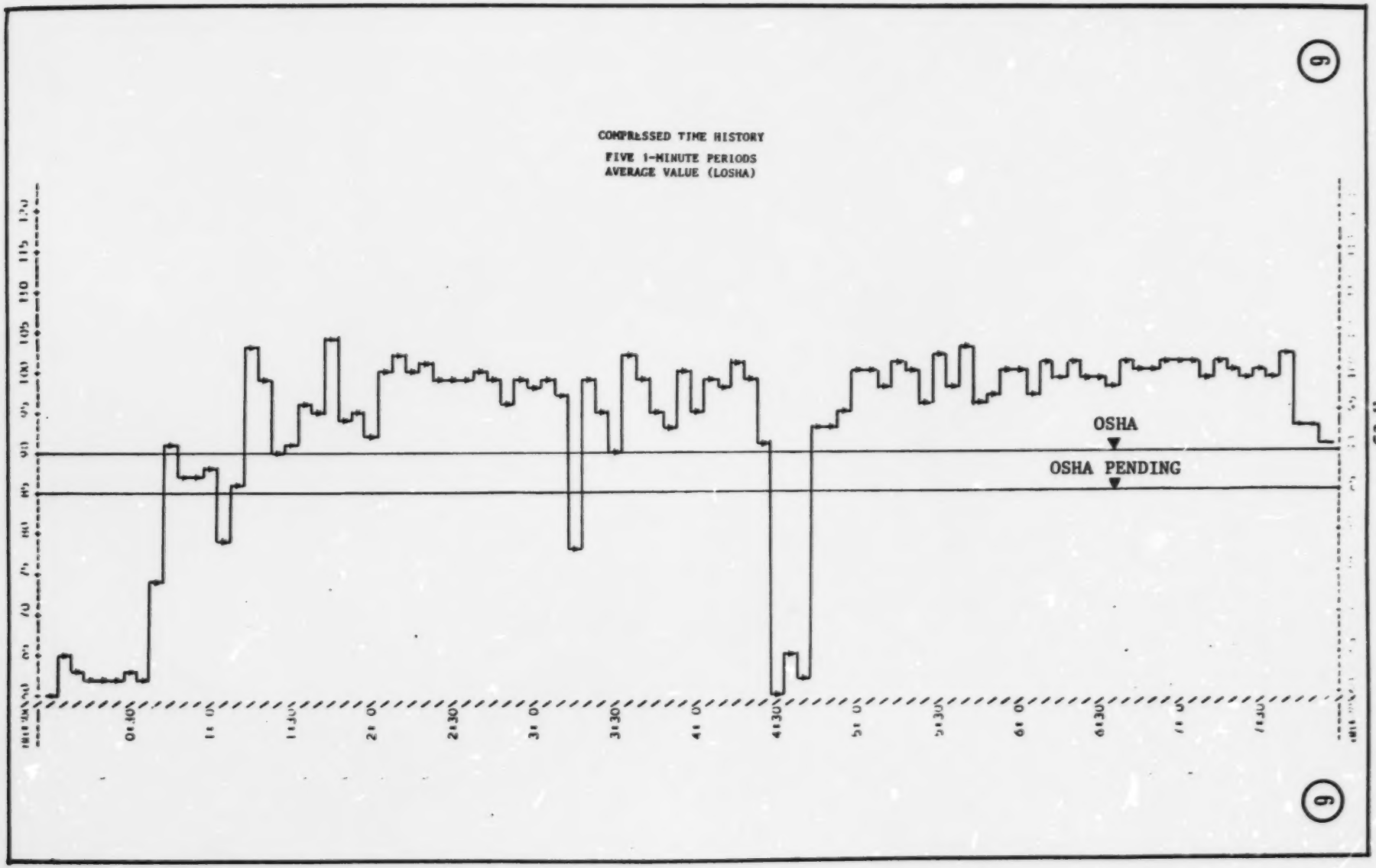
TIME	LOSSA		DOSE	
HOUR	CURRENT	CUMULATIVE	CURRENT	CUMULATIVE
1	79.1	79.1	2.776	2.78
2	96.1	91.8	29.130	31.91
3	99.5	96.3	46.389	78.29
4	97.2	93.8	33.845	112.14
5	94.5	95.6	23.451	135.59
6	99.5	96.4	46.701	182.29
7	99.9	97.0	49.433	231.72
8	98.9	97.3	42.950	274.67

MIN. COMP. = 60 DB MAX. COMP. = 106 DB
ARITHMETIC MEAN = 90 DB
STD. DEVIATION = 14 DB
VARIANCE =196 DB

FREQUENCY DISTRIBUTION

FREQUENCY		GROUP
NUMBER	PER CENT	
65	13.5	60 TO 64
18	3.8	65 TO 69
2	.4	70 TO 74
6	1.3	75 TO 79
15	3.1	80 TO 84
32	6.7	85 TO 89
43	9.0	90 TO 94
126	26.3	95 TO 99
167	34.8	100 TO 104
6	1.3	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480

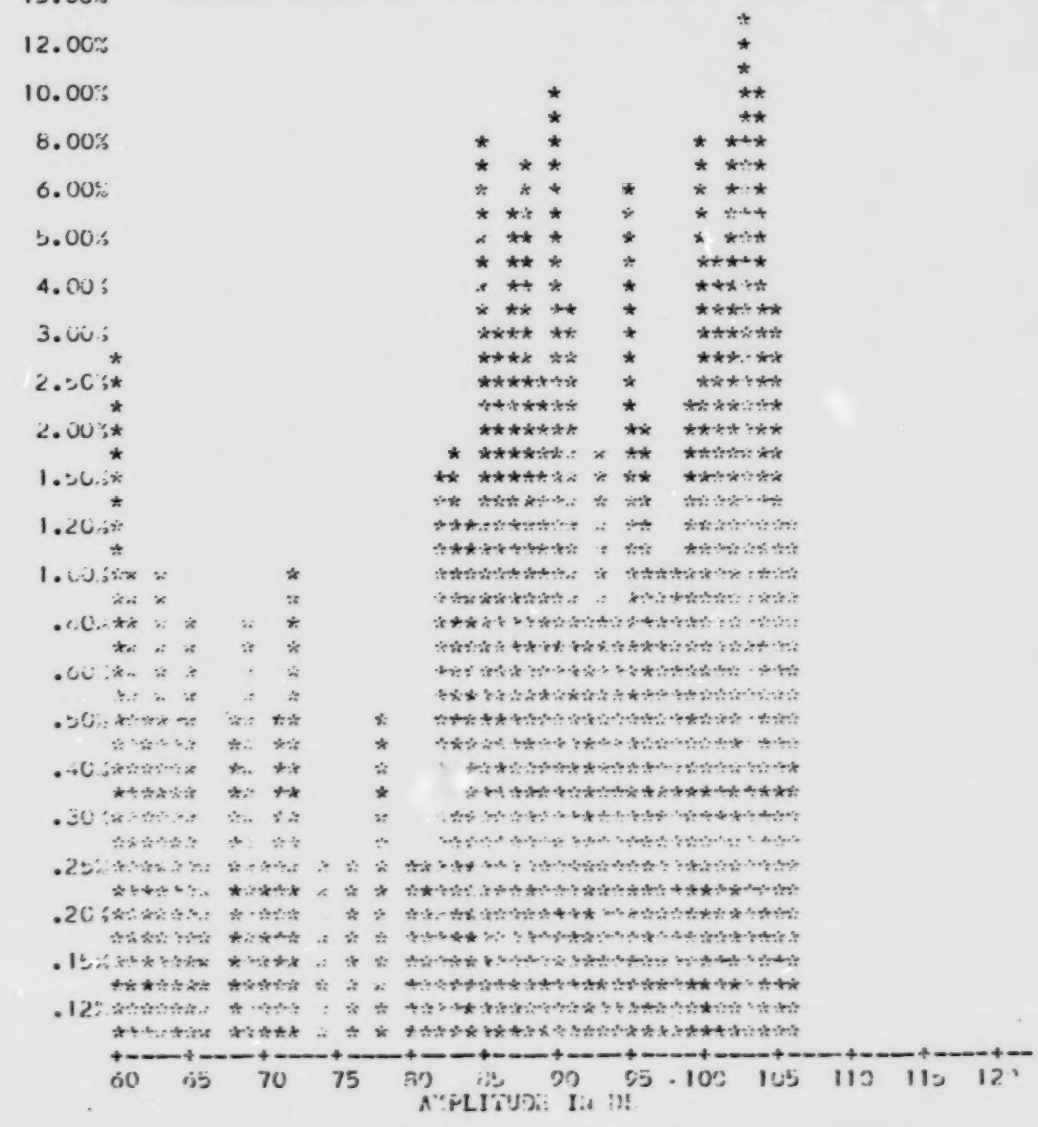

COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING

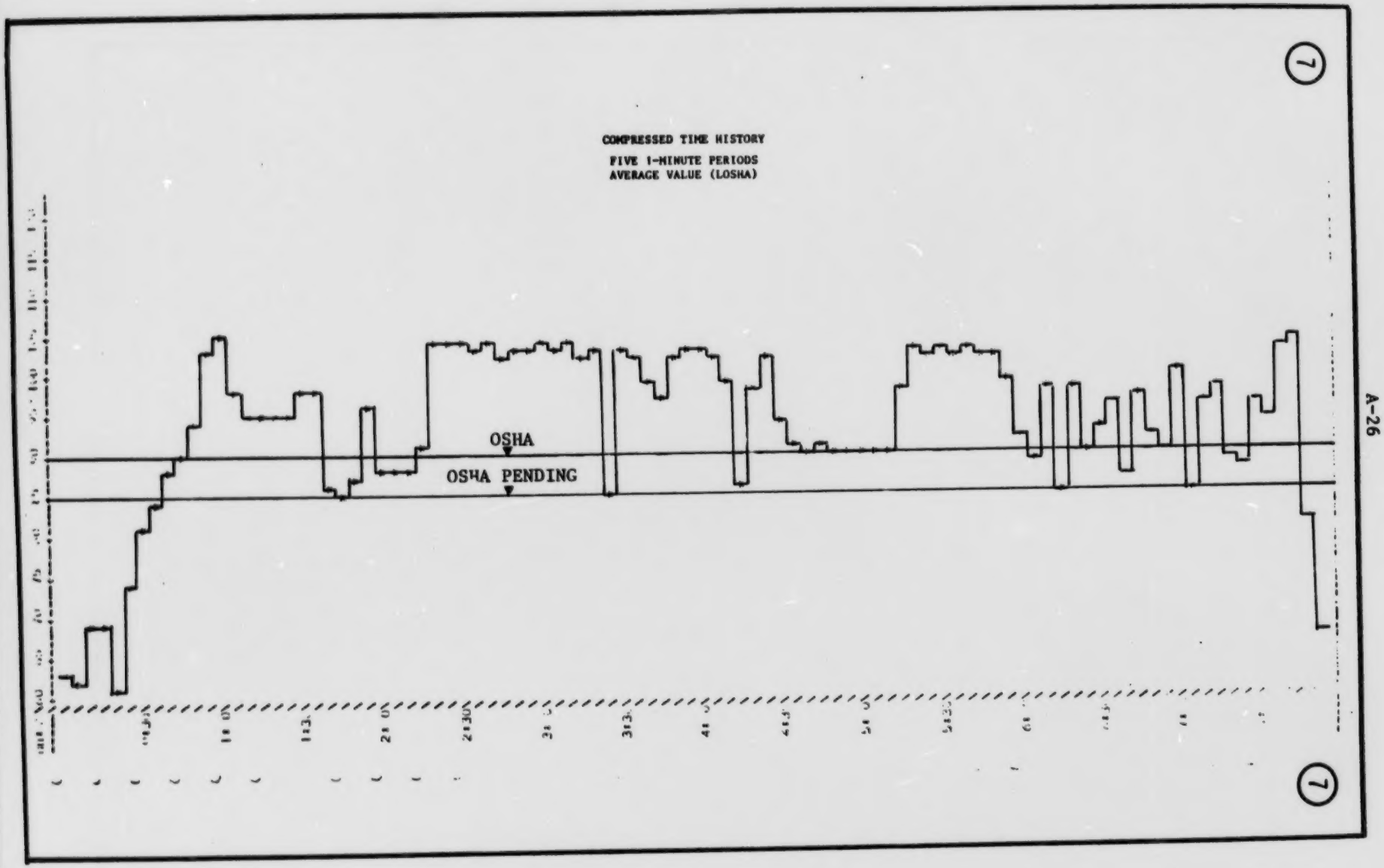
⑦

```
PLOT [illegible] DATA FROM DISK AVG & STD DEV
  1   2   3  [illegible]  6   7   8   9   1
    1 PS      11*2.0  2.0
 60  90  66  67  64  60  60  60  61  60  61  60  60  60  65  71
 75  82  77  70  74  62  70  69  64  62  66  64  66  66  61  60
 67  60  63  61  63  66  61  66  71  69  75  69  61  74  77  65
 90  92 106  98 101  96 102 102  95  95 101  96  97  95  97  96
 97  97  95  97  93  96 101 101 100 104 102 104 104 101 102  95
 95  91  95  89  [illegible]  92  [illegible]  85  89  [illegible]  90  89  92  89  [illegible]
 91  90  90  86  94  91  [illegible]  89  91  90  91  96  91  93  93  [illegible]
 90  84  86  88  84  88  [illegible]  84  81  86  [illegible]  82  [illegible]  89  [illegible]  [illegible]
 [illegible]  89  89  89  91  89  89  89  89  89  89  89  89  89  94  89
 [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]
 88  88  88  88  92  95  90  89  92  90  89  89  89  89  89  89
 89  89  89  89  89  89  89  91  90  92  89  91  89  97 102  95
 95  91  91  92  95  92 101  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]
 89  89  89  89  89  89  89  [illegible]  89  [illegible]  [illegible]  [illegible]  [illegible]  93  93  95
 94  94  90  90  91  90  89  92  94  90  92  90  91  90  90  90
 89  89  89  89  89  89  89  89  89  89  89  89  89  89  89  89
 90  91  94  96  92  96  90  [illegible]  89  89  89  [illegible]  [illegible]  89  89  89
 89  89  89  [illegible]  89  89  89  [illegible]  89  89  89  89  89  89  89  89
 89  89  89  89  89  89  89  89  89  90  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]
 89  91  91  93  89  89  89  89  91  90  90  90  89  89  90  91
 90  89  89  89  90  90  90  89  89  89  90  90  90  89  90  90
 90  91  90  95  96  97  98  98 101  98  94  90  90  90  90  90
 90  90  89  89  92  94  90  89  89  89  94  92  90  90  90  90
 90  92  93  90  90  95  91  90  90  90  90  96  92  90  91  91
 90  91  92  90  90  95  96  92  90  90  90  94 100  91  90  90
 89  90  90  90  95  89  89  89  95  90  92  89  89  89  89  89
100  90  89  89  89 101 105 103  97  91  93  96  96  89  92  91
 91  92  92  96  99  92  91 101  94 100 101  84 101 101 101 101
101 100 101 100 102 103 103 103 102 101 101 101 100  99 103  94
 97  91  91  92  93  92  94  95 103 103 102  97 101 102 103 104
$EOF


ENTER LOG DATE ( D/M/YR) : 12/07/72
ENTER SITE CODE (5 CHARS) : 02210

ENTER USER CODE (4 CHARS) : 2566
 ENTER JOB CODE (3 CHARS) : 2-3


      DATA LOGGED :12 JULY 1972                DATA ANALYZED : 12 SEPT 1972
           LOCATION : [illegible]-30/22                SITE CODE : 02210
  SERIAL NUMBER : 1216                      JOB CODE : 2-3
       LAS LINE : [illegible]                   USER CODE : 2566
  SYSTEM IC [illegible] : 44.0K                 TEST LEVEL : [illegible]
  SAMPLING RATE :  8/SEC                    TOTAL SAMPLES =  11[illegible]
  TEST DURATION =  [illegible]                STANDARD TIME =  [illegible]


                TIME HISTORY ANALYSIS

  [illegible] EXCEEDANCE LEVEL (L.E.L.) CALCULATIONS
  ANALYSIS CLASS INTERVAL = [illegible]
  LOG BASE = 10.0 / [illegible]
  CALCULATE (CUMULATIVE) DATA = Y
  LOWEST LEVEL (CUTOFF) LEVEL = [illegible]
    NUMBER OF COMPUTATIONS = 400
  PERIOD =  1 HOURS


 CLASS          LOG                          SCALE
 NUMBER    CURRENT   CUMULATIVE      CURRENT   CUMULATIVE
    1        [illegible]      [illegible]      10.038    10.03
    2        99.3      [illegible]      [illegible]    [illegible]
    3        [illegible]      91.6      10.412    20.45
    4        [illegible]      [illegible]      17.451    [illegible]
    5        89.6      91.4      11.749    76.12
    6        91.4      91.4      [illegible]    91.42
    7        [illegible]      [illegible]      [illegible]    [illegible]
    8        [illegible]      [illegible]      [illegible]    [illegible]
  TOTAL COUNTS =  [illegible]                TOTAL COUNTS = [illegible]
  [illegible] TIME =  [illegible]
  DIFFERENTIAL =  [illegible]
  CUMULATIVE =  1 [illegible]
```

⑦

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
25	5.2	60 To 64
10	2.1	65 To 69
6	1.3	70 To 74
4	.8	75 To 79
1	.2	80 To 84
191	39.8	85 To 89
141	29.4	90 To 94
51	10.6	95 To 99
48	10.0	100 To 104
3	.6	105 To 109
0	0.0	110 To 114
0	0.0	115 To 119
TOTAL NO. OF DATA POINTS = 480		




COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING

(8)

```
PLACE TAPE IN READER THEN TYPE A 'SPACE' AND A 'RETURN'
  1  26  80  1216   60   64    4    1
      76     115200  480
 63  60  60  63  68  61  60  60  65  63  71  61  62  71  72  60
 76  72  65  60  60  61  64  60  60  60  69  78  80  70  89  86
 64  68  60  65  78  87  87  88  89  88  87  88  88  88  88  89
 91  92  86  85  85  95 102 103 100 103 105 105 106 106 105 106
104 105  91  91  96  94  94  95  95  95  95  95  95  95  95  95
 95  95  95  95  95  95  95  97  93  93  93  93 101 104 101
101  95  91  95  85  85  86  87  85  85  85  85  85  85  85  85
 86  89  88  88  89  98 101  96  88  88  88  88  88  88  88  88
 88  88  88  88  88  88  88  88  88  87  88  98 102 105 105 104
104 104 102 104 105 103 101 104 105 104 104 104 102 103 104 102
101 104 105 104 104 104 100 103 103  95  96 103 105 103 103 104
103 103 102 102 103 105 104 104 104 103 102 103 104 104 104 102
104 105 104 104 105 103 101  97 103 103 104 103  1  2  91  81  82
 82  82 104 104 103 103 103 101 100 103 103 104 103 102 101  83
 83  83  84  86 101 104 103 103 101 102 101 103 103 103 103 102
103 104 103 103 103 101 101 103 102 103 103 102  90  82 102  93
 82  83  82  83  83  83  89 104 104 103 103 103 100 102 102  90
 90  90  90  90  90  91  91  92  90  90  90  90  90  90  90  93
 90  90  90  90  90  90  90  90  90  90  90  90  90  90  90  90
 90  90  90  91  90  90  90  90  90  90  91 102 100  87  99  96
102 104 103 103 103 102 103 103 101 103 102 104 104 103 103 102
102 103 102 100 100 103 104 103 104 103 101 103 102 102 100 100
101 104 103  99  99 100  99  99  95  98  85  85  85  85  85  84
 84  97 100 100  99  98  85  85  85  84  84  85  85  97 100 100
 99  96  86  87  87  87  87  87  87  95 100 100 100  96  87  87
 87  87  87  86  87  87  99 100 100  93 100  92  86  86  86  87
 86  87  87  96 100 100 101 100  96  85  86  85  85  85  85  85
 95 100 100 100 100 100  94  89  89  89  90  89  89  90  91  86
 85  85  85  85  85  99 103 100  91  91  91  91 102 103 103 105
100 105 106 106 102 102  91  74  69  62  72  72  63  69  61  66
%EOF
```

(8)

```
ENTER LOG DATE (DD/MM/YR) : 13/07/79

ENTER SITE CODE (5 CHARS) : CC210
ENTER USER CODE (4 CHARS) : 2568
 ENTER JOB CODE (3 CHARS) : 283
```

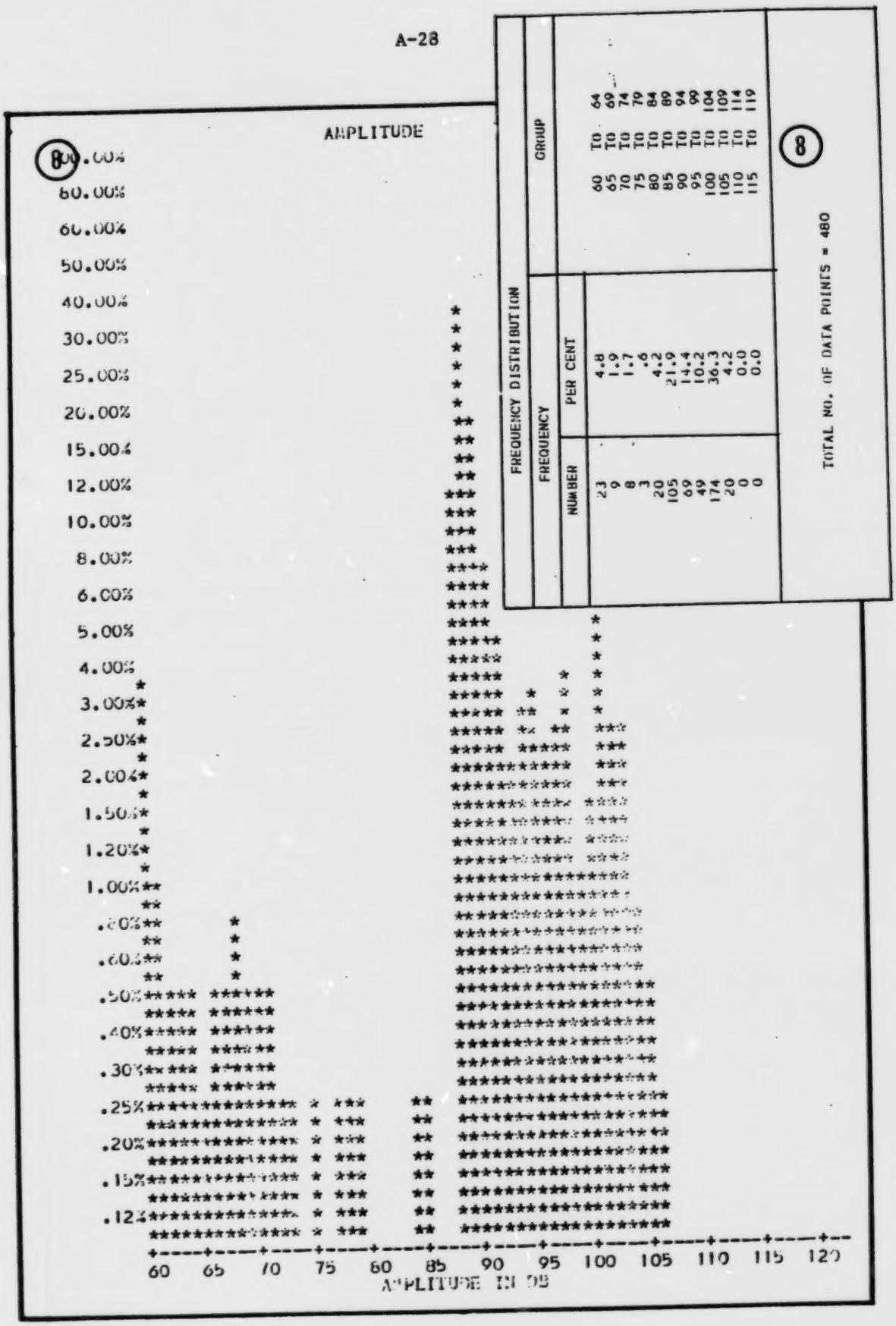
```
    DATA LOGGED :13 JULY 1979          DATA ANALYZED : 12 SEPT 1979
         LOGGER : SD-301/26                 SITE CODE : CC210
SERIAL NUMBER : 1216                        JOB CODE : 283
      BASELINE : 60 DB                      USER CODE : 2568
DYNAMIC RANGE : 64 DB                       THRESHOLD : 80 DB
SAMPLING RATE : 4/SEC                  TOTAL SAMPLES = 1152 00
TEST DURATION = 8: 0: 0                STANDBY TIME = 0: 0:12
```

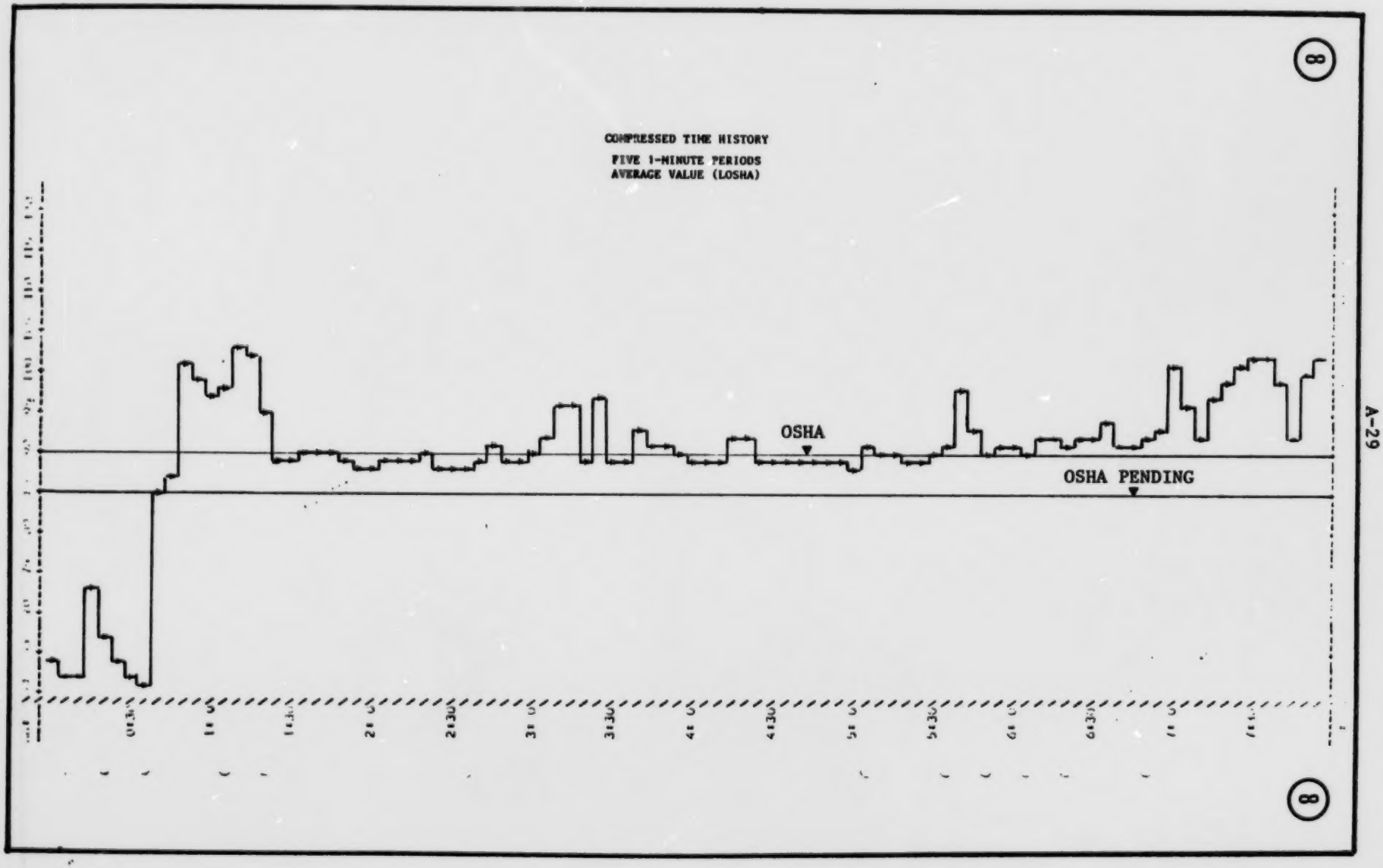
TIME HISTORY ANALYSIS

NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
ARE BASED ON THE FOLLOWING
100% NEI = 90 DB / 8 HRS
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CUTOFF) LEVEL = 80 DB
NUMBER OF COMPUTATIONS = 480
PERIOD = 1 MINUTES

TIME HOUR	LOGN CURRENT	LOGN CUMULATIVE	DOSE CURRENT	DOSE CUMULATIVE
1	89.3	89.3	11.418	11.42
2	96.5	94.8	30.566	42.00
3	100.6	96.9	55.682	97.62
4	101.8	98.5	63.740	161.60
5	96.9	98.2	32.735	194.34
6	100.2	98.6	51.157	245.50
7	93.9	98.0	20.[illegible]	266.[illegible]
8	96.3	97.8	29.[illegible]	295.[illegible]

[illegible] = 98 DB.
AVER[illegible] = 93 DB
[illegible] = 11
[illegible] = 121


AMPLITUDE
70.00%
60.00%
50.00%
40.00%
30.00%
25.00%
20.00%
15.00%
12.00%
10.00%
8.00%
6.00%
5.00%
4.00%
3.00%
2.50%
2.00%
1.50%
1.20%
1.00%
.80%
.60%
.50%
.40%
.30%
.25%
.20%
.15%
.12%
60 65 70 75 80 85 90 95 100 105 110 115 120
AMPLITUDE IN DB
FREQUENCY DISTRIBUTION
GROUP
FREQUENCY
NUMBER
PER CENT
60 TO 64 23 4.8
65 TO 69 9 1.9
70 TO 74 8 1.7
75 TO 79 3 .6
80 TO 84 20 4.2
85 TO 89 105 21.9
90 TO 94 69 14.4
95 TO 99 49 10.2
100 TO 104 174 36.3
105 TO 109 20 4.2
110 TO 114 0 0.0
115 TO 119 0 0.0
8
TOTAL NO. OF DATA POINTS = 480


8
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING
8

(9)

```
PLACE TAPE IN HEADER THEN TYPE A "SPACE" AND A "RETURN"
  1  26  80  1225     60     64     4     1
     177      115200   480
 60  60  60  67  60  60  60  63  62  71  62  63  67  76  60  70
 67  71  65  64  66  66  71  64  62  68  76  77  73  84  82  72
 71  63  60  60  77  74  90  94  91  91  91  92  93  94  93  93
103 106 104 108 106 106 106 102 107 106 105 106 107 107 107 107
106 108 106 105  99  99  99  99  94  98  98  95  98  94  93  93
 96  98  94  95  94  98  98 107 105  90  90  90  90  96  99  96
 98 105 105 105 106 104 103 106 105  96  98 105 104 103 104 102
105 106 106 102 100 105 107 106 107 105 106 107 106 104 100 101
103 109 107 108 108 106 108 105 109 110 103 103 101 107 111 107
106 105 107 108 106 110 109 102 102 100  94 110 107 107 103 107
106 108 107 107 103 108 110 105 103 103 106 109 108 108 102 101
108 110 107 108 109 105 107 107 110 111 103 101 103 101 102  98
101 102 110 109 106 108 108 103 107 102 110  95  92 101 100 107
108 107 107 106 105 107 106 110 102 103 103 103 100 107 107 102
107 104 106 108 110 108 104 104 102 104 105 106 106 106 105 106
106 105 106 105 105 107 106 105 105 105 104 104 105 105 104 105
105 106 106 105 104 105 106 106 105 105 105 105 105 104 106 107
106 103  99  99 100 103 110 108 103 102 107 106 102 106  94  94
 94  94  93  94  94  94  94  94  94  94  94  94  94  94  94  94
 94  94  94  94  94  93  93  94  94  95  99 102 105 106 105 105
105 101 101 106 106 106 105 106 106 105 107 103 106 101 105 106
106 105 107 107 105 107 106 108 103 105 106 106 105 105 107 105
105 107 109 101  99 105 102 105 106 106 106 105 107 105 107 105
106 101 105 108 107 107 105 107 103 108 101 101 100  99 106 104
106 107 105 108 103 107 101 100 107 106 107 107 105 103 104 106
106 107 107 106 107 107 108 109 103 101 103 104 107 107 103 105
108 109 106 101 100 108 106 107 108 105 107 106 103 103  95  64
108 103 103  99  93  98  98  97  97  97  94 102 103  95  64  60
 60  63  64  60  64  81  74  77  65  76  72  92  97  90  97  93
 97  98  98  95  71  90  70  74  83  82  96  84  95  94  77  74
$EOF
```

(9)

```
ENTER LOG DATE (DD/MO./YR) : 13/07/79
ENTER SITE CODE (5 CHARS) : CC210
ENTER USER CODE (4 CHARS) : 4110

 ENTER JOB CODE (3 CHARS) : 284
```

```
    DATA LOGGED :13 JULY 1979                DATA ANALYZED : 12 SEPT 1979
         LOGGER : DA-301/26                      SITE CODE : CC210
  SERIAL NUMBER : 1225                           JOB CODE : 284
       BASELINE : 60 DB                          USER CODE : 4110
  DYNAMIC RANGE : 64 DB                          THRESHOLD : 60 DB
  SAMPLING RATE : 4/SEC                  TOTAL SAMPLES =  115200
  TEST DURATION =   8 HR  0 M                 STARTING AT =  08:00:00
```

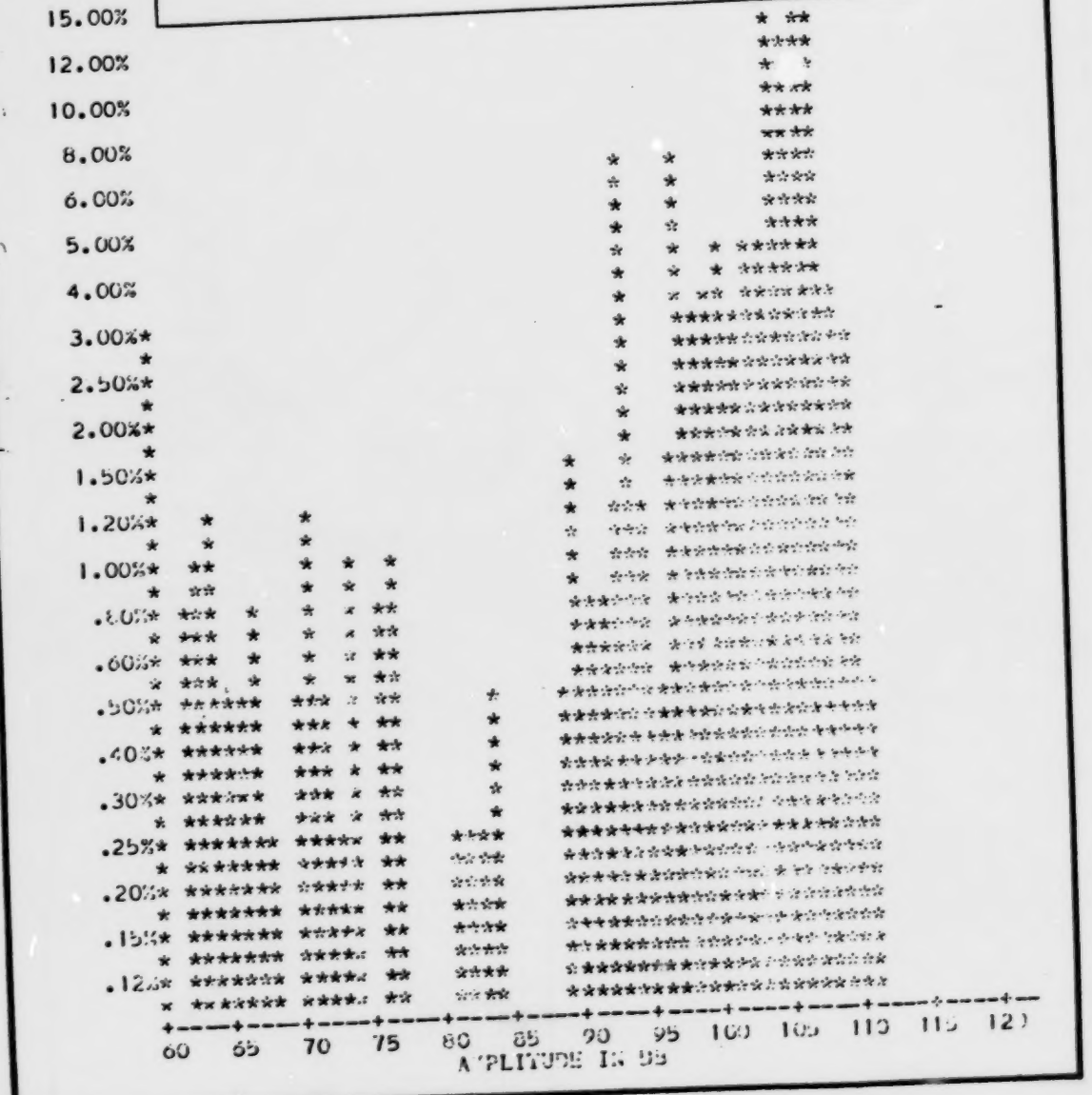
TIME HISTORY ANALYSIS

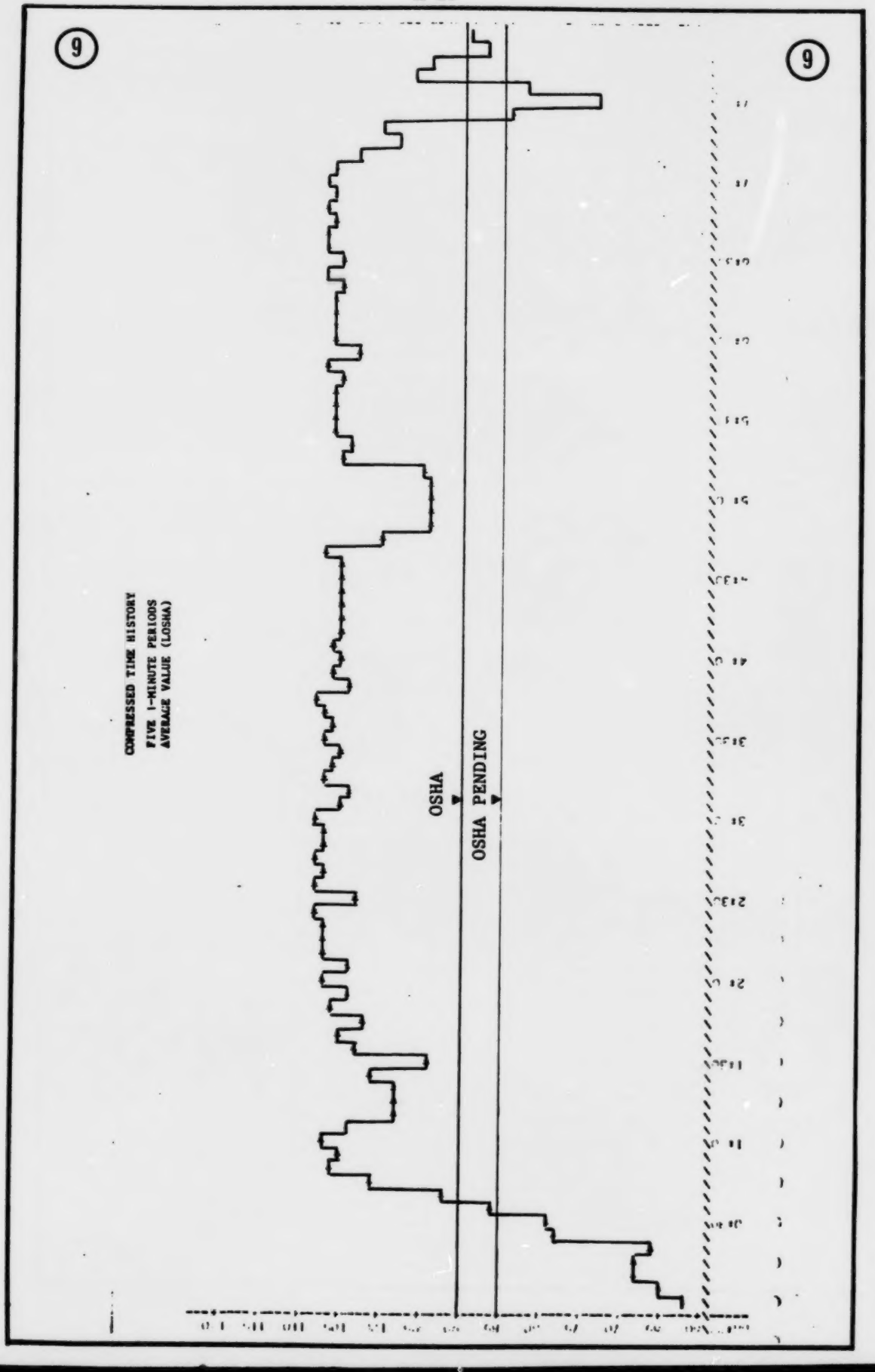
NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
ARE BASED ON THE FOLLOWING
100% DOSE = 90 DB / 8 HRS
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CUTOFF) LEVEL = 60 DB
NUMBER OF COMPUTATIONS = 480
PERIOD = 1 MINUTES

TIME	LOCAL		DOSE	
HOUR	CURRENT	CUMULATIVE	CURRENT	CUMULATIVE
1	95.2	95.2	25.541	25.54
2	102.6	99.8	71.948	97.49
3	106.0	103.0	128.379	225.87
4	106.1	103.9	117.109	342.97
5	104.0	103.9	87.549	430.52
6	103.8	103.9	84.107	514.62
7	103.2	103.8	117.[illegible]	631.93
8	98.7	103.8	41.4[illegible]	673.32

MIN. COMP. = 60 DB
ARITH. MEAN = [illegible]
STD. DEVIATION = 15 DB
VARIANCE = [illegible]
MAX. COMP. = 111 DB

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
24	5.0	60 TO 64
8	1.7	65 TO 69
14	2.9	70 TO 74
7	1.5	75 TO 79
5	1.0	80 TO 84
2	.4	85 TO 89
44	9.2	90 TO 94
54	11.3	95 TO 99
79	16.5	100 TO 104
230	47.9	105 TO 109
13	2.7	110 TO 114
0	0.0	115 TO 119
TOTAL NO. OF DATA POINTS = 480		




9
9
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING

(10)

```
PLACE DATA IN HEADER INFO TYPE A SERVICE VARIABLE ?10,100,2
 1  25  60  1221   69   64    4    1
  19/28      11:30:00  ...
 70  70  71  69  73  78  74  76  66  69  70  67  72  76  74  75
 75  74  69  76  74  75  78  79  75  73  92  95  99  76  77  77
 96  93  84  78  65  60  72  93  93  91  98 103 104  97  97  96
 96  96  95  96  94  96  96  97  95  97  97  97  98  97  96  97
 96  96  95  96  97  98 100 103 100 103 107 107 106 106 106 104
106 107 104 103 104 107 107 107 107 105 104 103 103  97  92  92
 96  96 103  93 102 104 103  96  94 102  95  90  96 103 103 103
103 103 105 101 103 106 101  97 102 102 100 103 103 103 105  95
 98  97 104 106 101 102 103 105 102  94 104 101 102 101  94 101
103 103 104 103 102 102 103 103 106  95  97 102 103 103 104 104
103 105 103 103 103  97  96 102 105 103 105 105 104 102 102 103
104 104 105 105 104 103 104 104 102 103 103 104 105 103 103  94  97
103 104 103 105 105 104 103 103 101 105  96 103 103 103 103 103  95
106 101  97 104 105 105 104 104 103 102 103 103 103 104 103 102
101 102 103 102 102 103 102 102 102 102 102 101 102  93 103 100
 96 104 103 104 104 103 103  90  90  90  90  91  90  90  90  90  90
 90  90  90  90  90  90  90  90  90  90  90  90  89  89  89  93
 97  98 105 103 100  98  96  98 103 104 103 103 103 102 103 105
104 104 105 105 104 102 104 103 104 104 104 104 105 101 103 105
102  99  89 101 102 102 105 104 103 103 102 103 104 104 102 103
103 103 105 102  91  96  99  95 103 104 105 105 103 103 104 103
103 104 105  98  99 104 103 103 103 104 101 104 102 103 104 103
 95  94  95  95  95 103 104 105 104 104 103 104 104 103 104 102
 94  96 102 103 103 102 105 104 103 103 102 104 105 100  95  99
104 104 103 104 103 104 103 105 101  94  94  96 104 103 104 104
103 105 105 104 101  95  95 101 105 104 105 104 103 104 104 104
105 101  94  98 104 104 104 104 103 104 104 105 104  95  94 101
104 104 104 106  93  93 103 104 104 103 101  98  97  99  97  92
 91  97 103  78  72  63  61  60  63  66  70  74  76  70  72  78
 82  75  70  62  74  80  80  79  75  79  76  68  73  76  86  93
*EOF
```

(10)

```
ENTER LOG DATE (MM/DD/YR) : 11/07/79
ENTER SITE CODE (5 CHARS) : 30269
ENTER USER CODE (4 CHARS) : 7914

 ENTER JOB CODE (3 CHARS) : 283
```

```
    DATA LOGGED : 11 JULY 1979
         LOGGER : DI-3000/26
SERIAL NUMBER   : 1224
     CALIBRATE  : 60 DB
DYNAMIC RANGE   : 60 DB
SAMPLING RATE   : 4/SEC
TEST DURATION   =    8 : 34  0

DATA ANALYZED : 12 SEPT 1979
     SITE CODE : 30269
      JOB CODE : 283
      USER CODE : 7914
     THRESHOLD : 60 DB
TOTAL SAMPLES =  115200
 STARTED TIME =  1123: 7
```

TIME HISTORY ANALYSIS

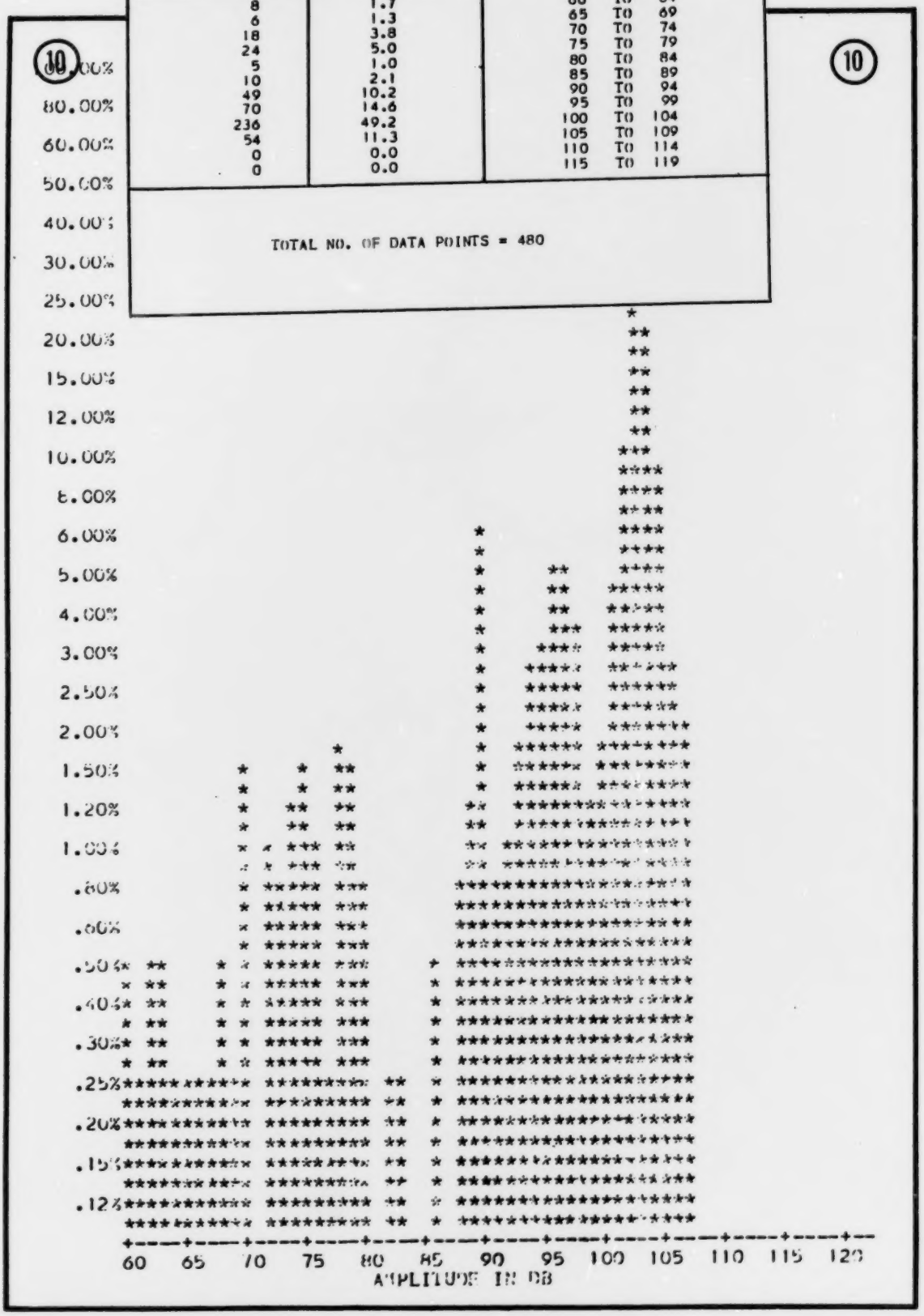
```
NOISE EXCEEDANCE INDEX (N.E.I.) CALCULATIONS
ANALYSIS OF THE FOLLOWING
TOTAL TIME = 90 HR  7 MIN
EXCEEDANCE (MEASURED) LEVEL = 60 DB
THRESHOLD (CUTOFF) LEVEL = 60 DB
  NUMBER OF COMPUTATIONS = 480
PERIOD =  1 HOURS
```

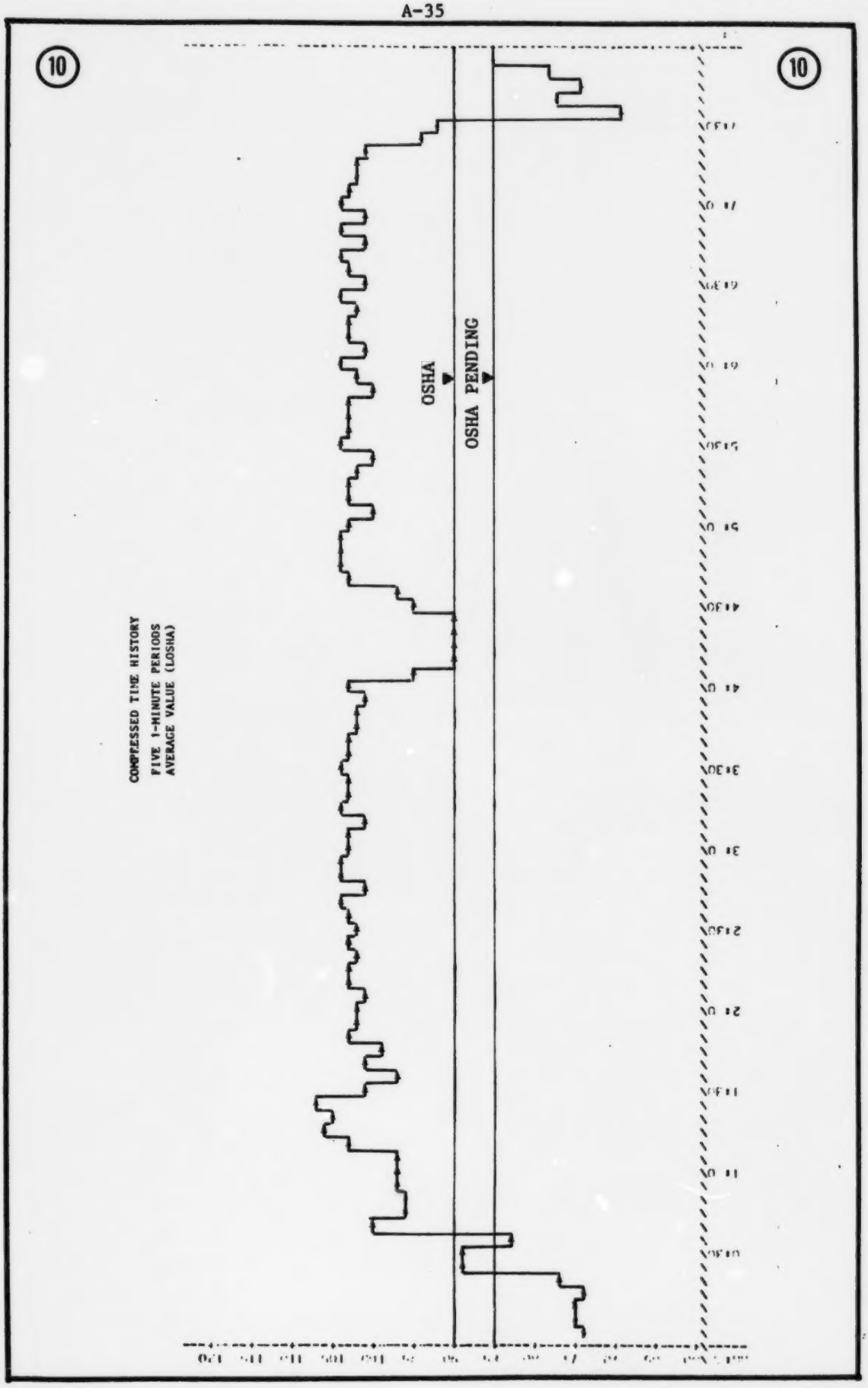
TIME	LOCAL		WORK	
HOUR	CURRENT	CUMULATIVE	CURRENT	CUMULATIVE
1	91.0	91.0	14.451	14.45
2	102.3	96.7	68.677	83.13
3	102.7	101.3	73.354	156.49
4	102.7	101.0	42....	199.01
5	99.3	100.7	45.414	244.43
6	102.3	101.0	68.913	313.36
7	102.3	101.2	71.954	385.31
8	97.2	100.8	62.761	448.10

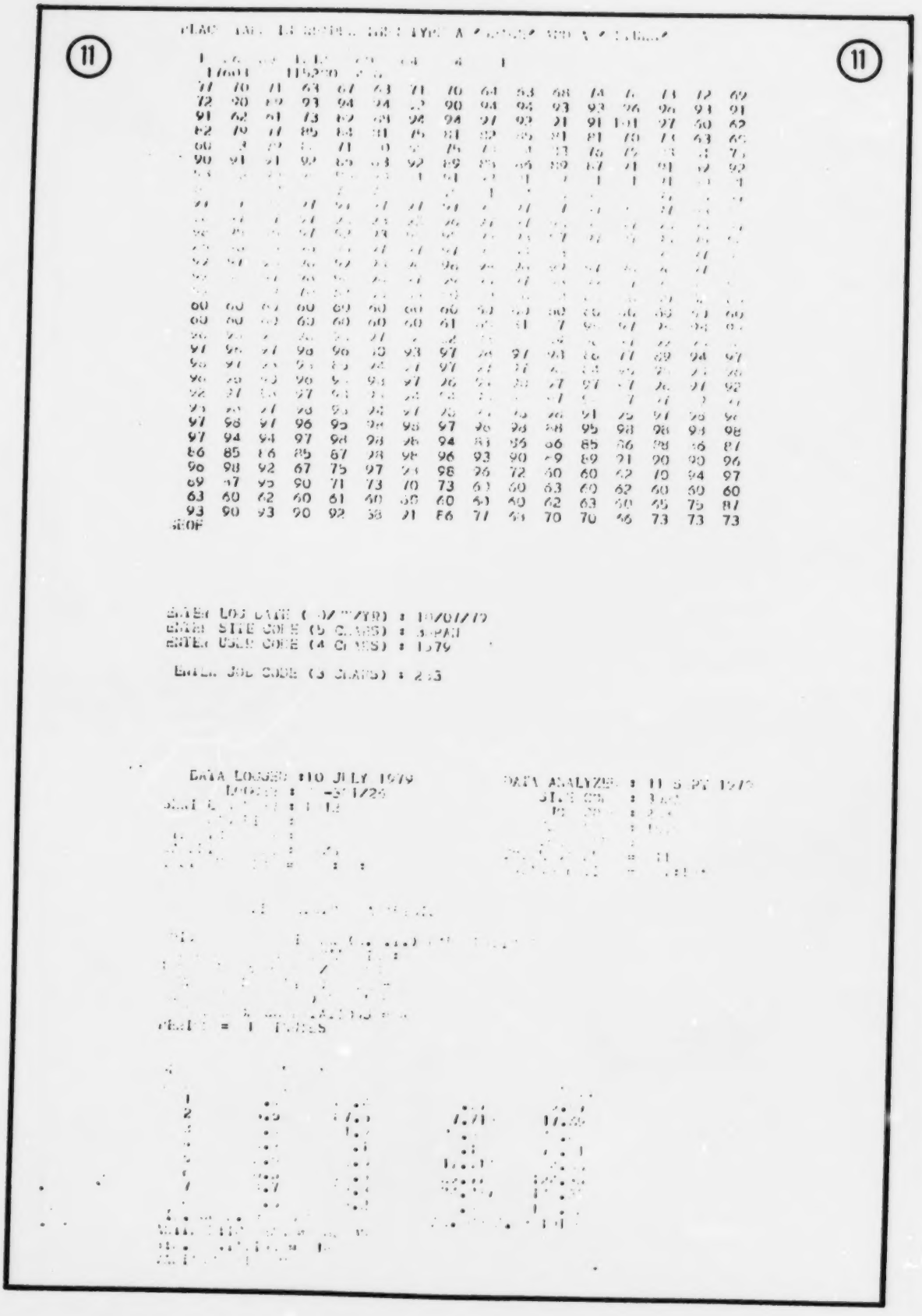
```
MIN. CODA = 90 DB
AVERAGE CODA = 97 DB
STD. DEVIATION = 10.7
VARIANCE =1 .. ..
```

MAX. CODA = 107 ...

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
8	1.7	60 TO 64
6	1.3	65 TO 69
18	3.8	70 TO 74
24	5.0	75 TO 79
5	1.0	80 TO 84
10	2.1	85 TO 89
49	10.2	90 TO 94
70	14.6	95 TO 99
236	49.2	100 TO 104
54	11.3	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119
TOTAL NO. OF DATA POINTS = 480		




10
10
OSHA
OSHA PENDING
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)



(11)

(11)

77	70	71	64	67	63	71	70	64	63	68	74	76	73	72	69
72	90	89	93	94	94	92	90	94	94	93	93	96	96	93	91
91	62	91	73	82	84	96	94	97	93	91	91	101	97	90	82
82	79	77	85	84	81	85	81	89	85	81	81	79	73	83	69
66	3	69	71	71	0	0	75	73	3	73	76	72	73	3	73
90	91	91	90	89	93	92	89	89	96	89	87	91	91	92	92
90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
60	60	60	60	60	60	60	61	60	61	7	90	97	90	90	60
97	96	97	96	96	96	93	97	96	97	93	86	77	89	94	97
96	97	96	96	95	96	97	97	97	97	96	95	95	96	96	96
96	96	96	96	96	96	97	96	96	96	97	97	97	96	97	96
97	96	97	96	96	96	96	97	96	96	96	96	91	95	96	96
97	96	97	96	96	96	96	97	96	96	96	95	96	96	96	96
97	94	94	97	96	96	96	94	93	95	96	85	96	96	96	87
86	85	86	85	87	88	96	96	93	90	89	89	91	90	90	96
96	96	92	87	75	97	96	96	96	72	60	60	62	70	94	97
69	87	93	90	71	73	70	73	63	60	63	60	62	60	60	60
63	60	62	60	61	60	60	60	60	60	60	62	63	60	65	75	87
93	90	93	90	92	88	91	86	77	66	70	70	66	73	73	73

$EOF

ENTER LOG DATE (DD-MM-YR) : 10/07/79
ENTER SITE CODE (5 CHARS) : SHPAR
ENTER USGS CODE (4 CHARS) : 1579

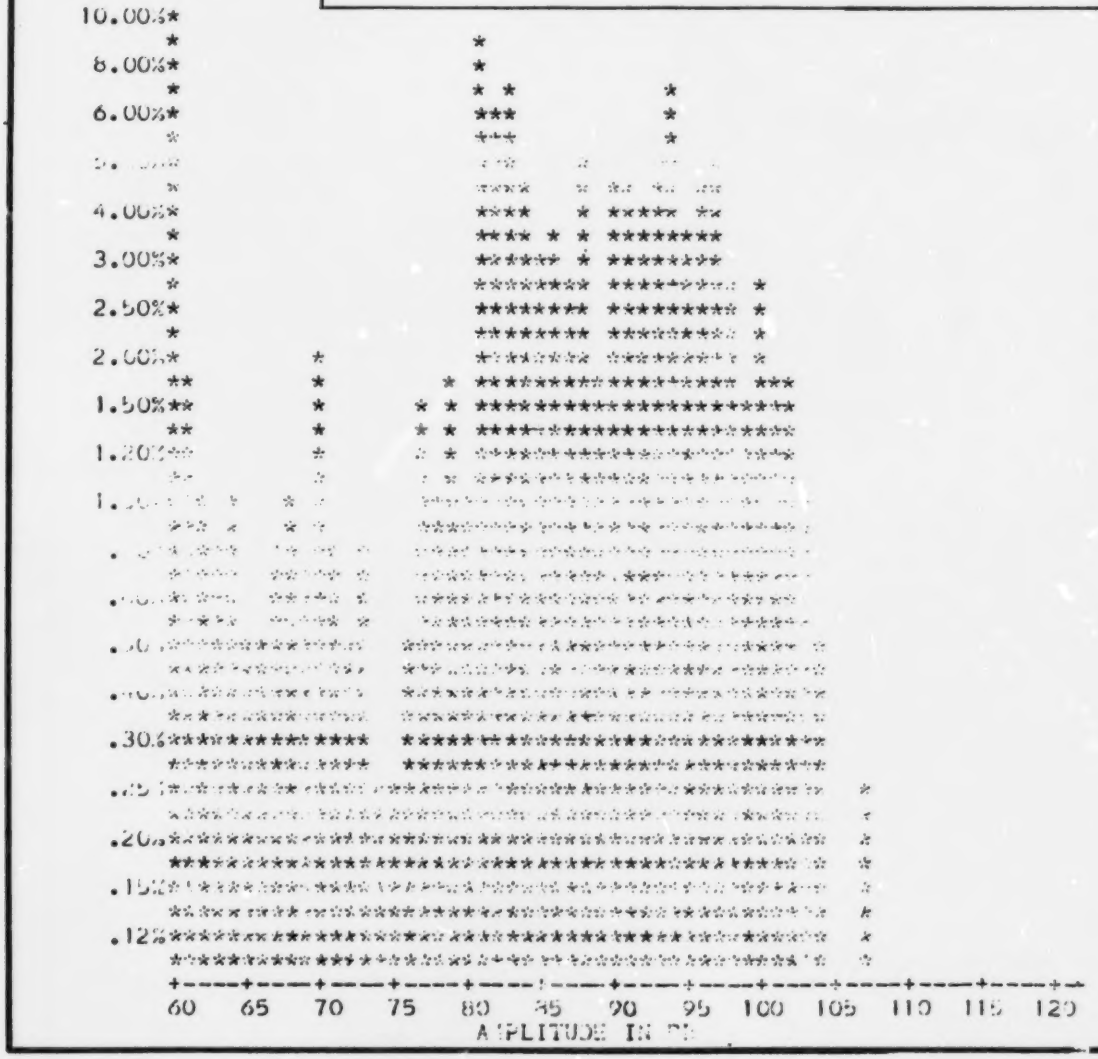
ENTER JOB CODE (3 CHARS) : 2:3

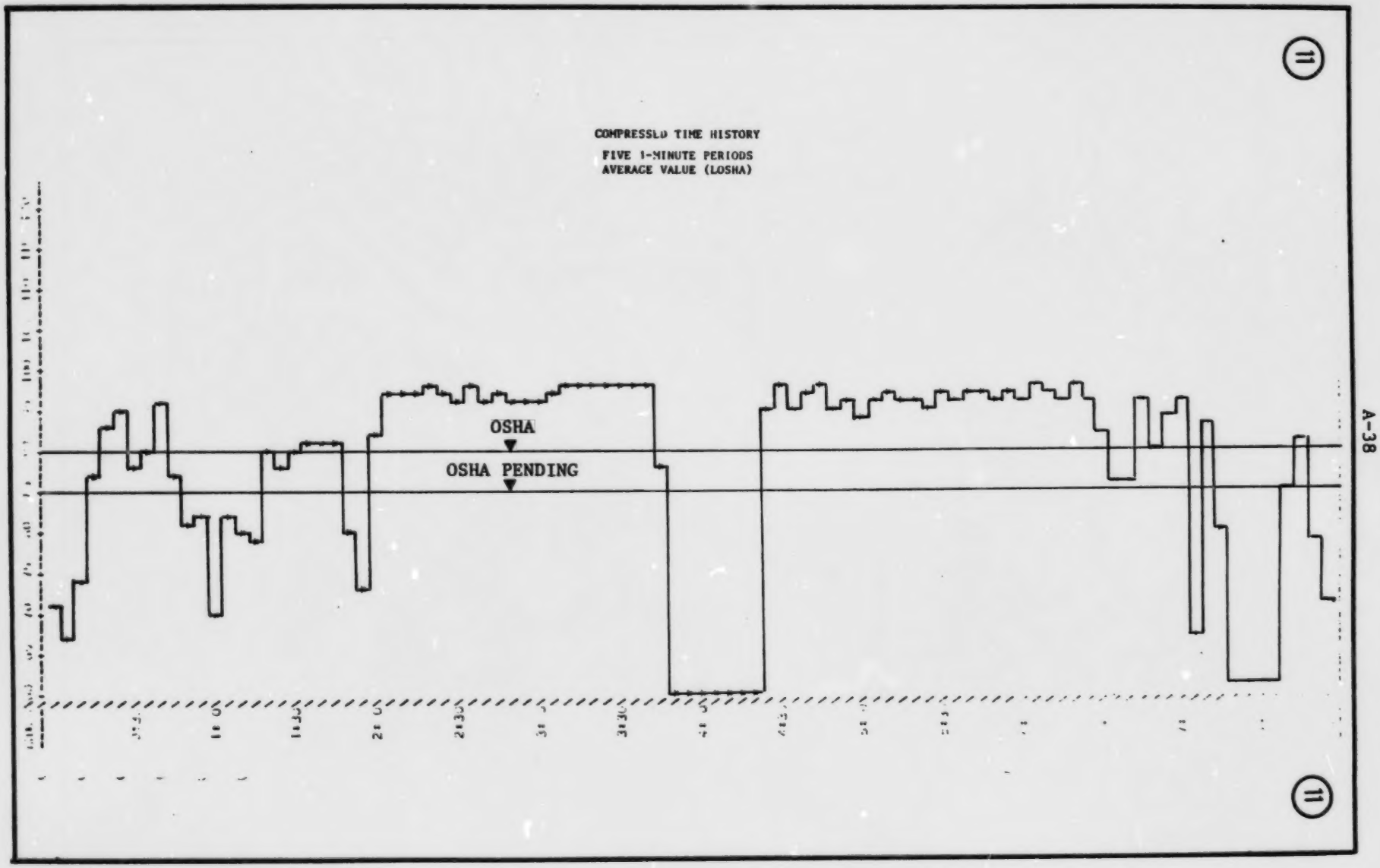
DATA LOGGED :10 JULY 1979

DATA ANALYZED : 11 SEPTEMBER 1979

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
77	16.0	60 TO 64
8	1.7	65 TO 69
24	5.0	70 TO 74
18	3.8	75 TO 79
22	4.6	80 TO 84
42	8.8	85 TO 89
76	15.8	90 TO 94
212	44.2	95 TO 99
1	.2	100 TO 104
0	0.0	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

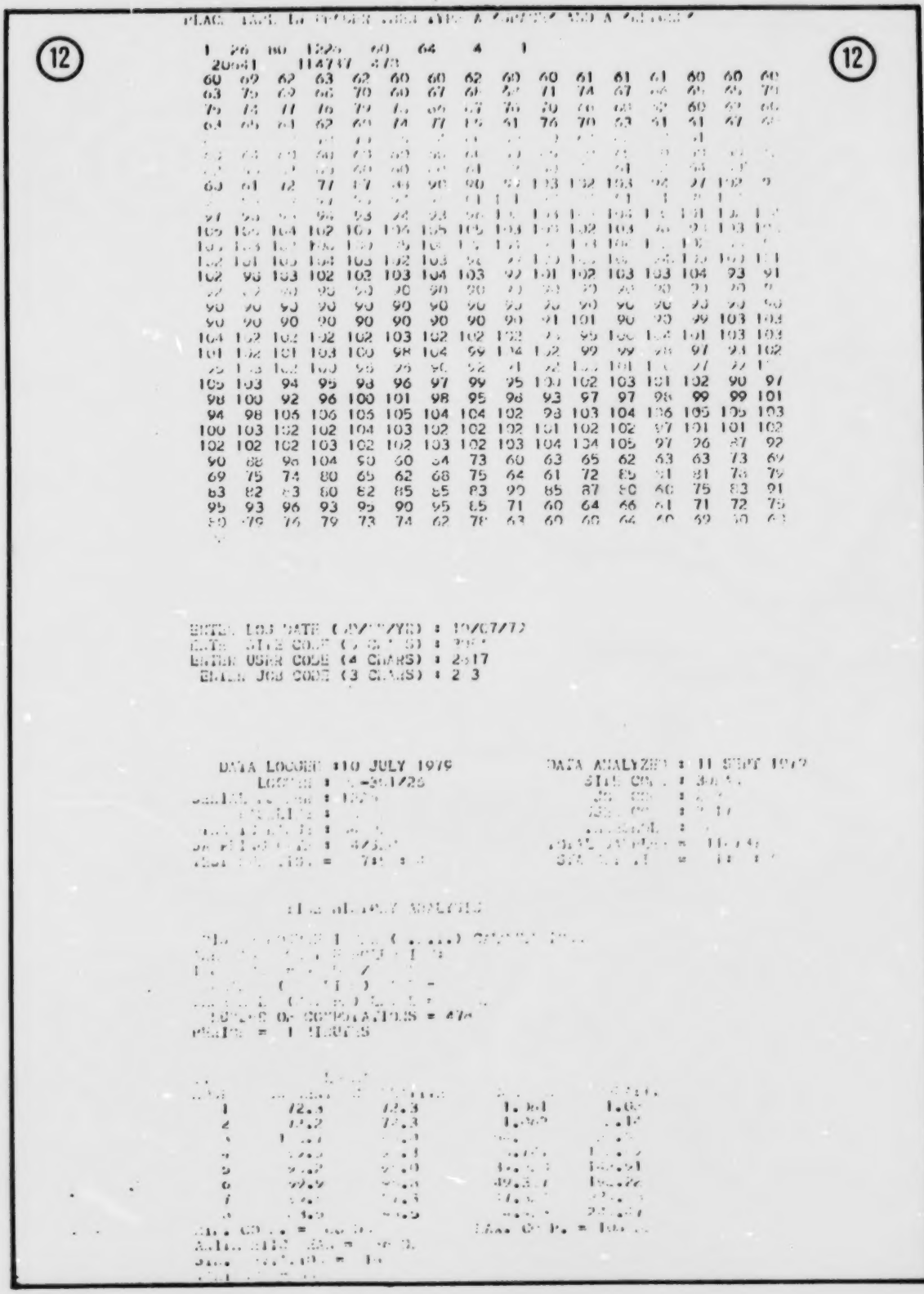
TOTAL NO. OF DATA POINTS = 480




COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING

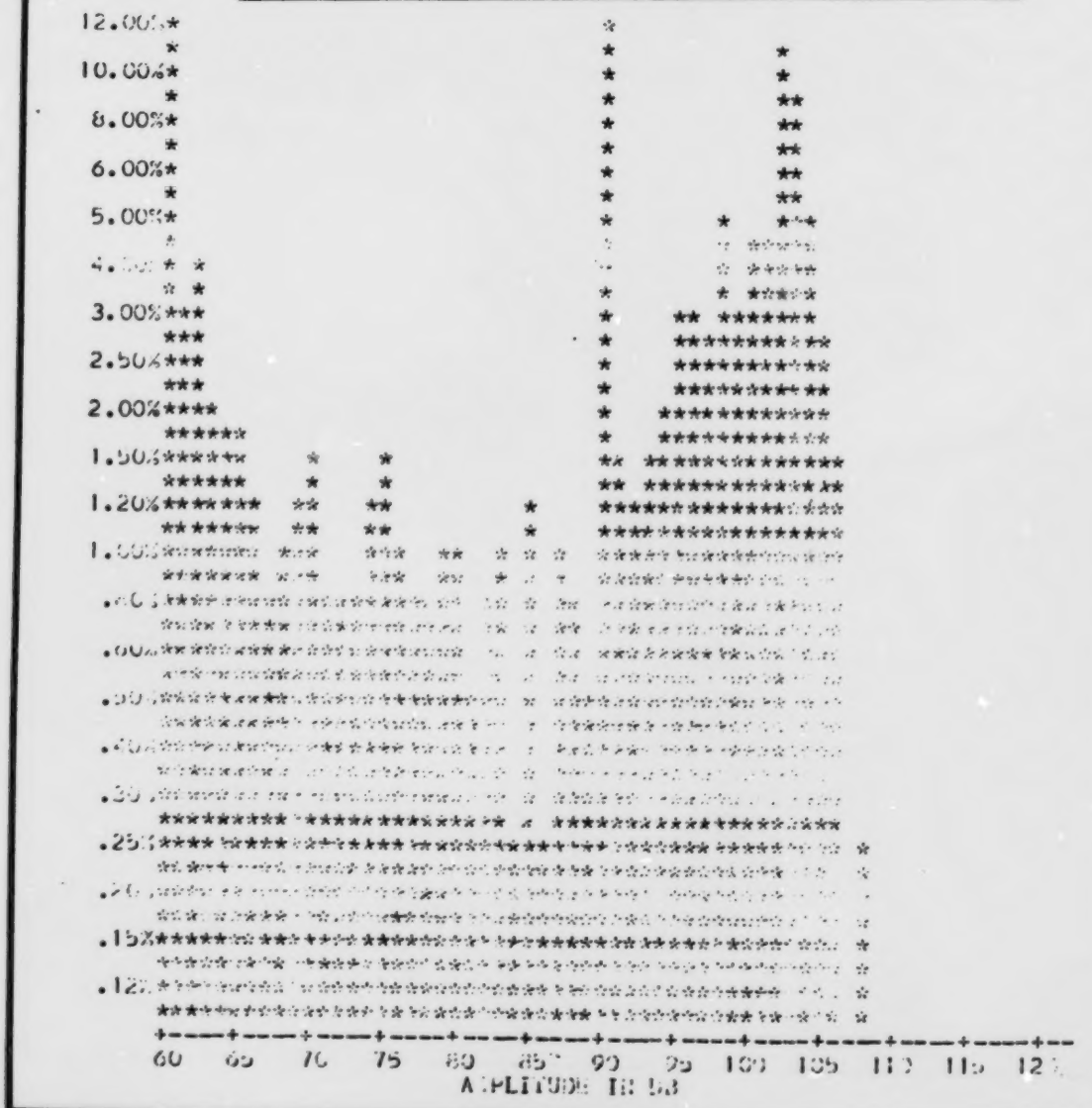
(12)

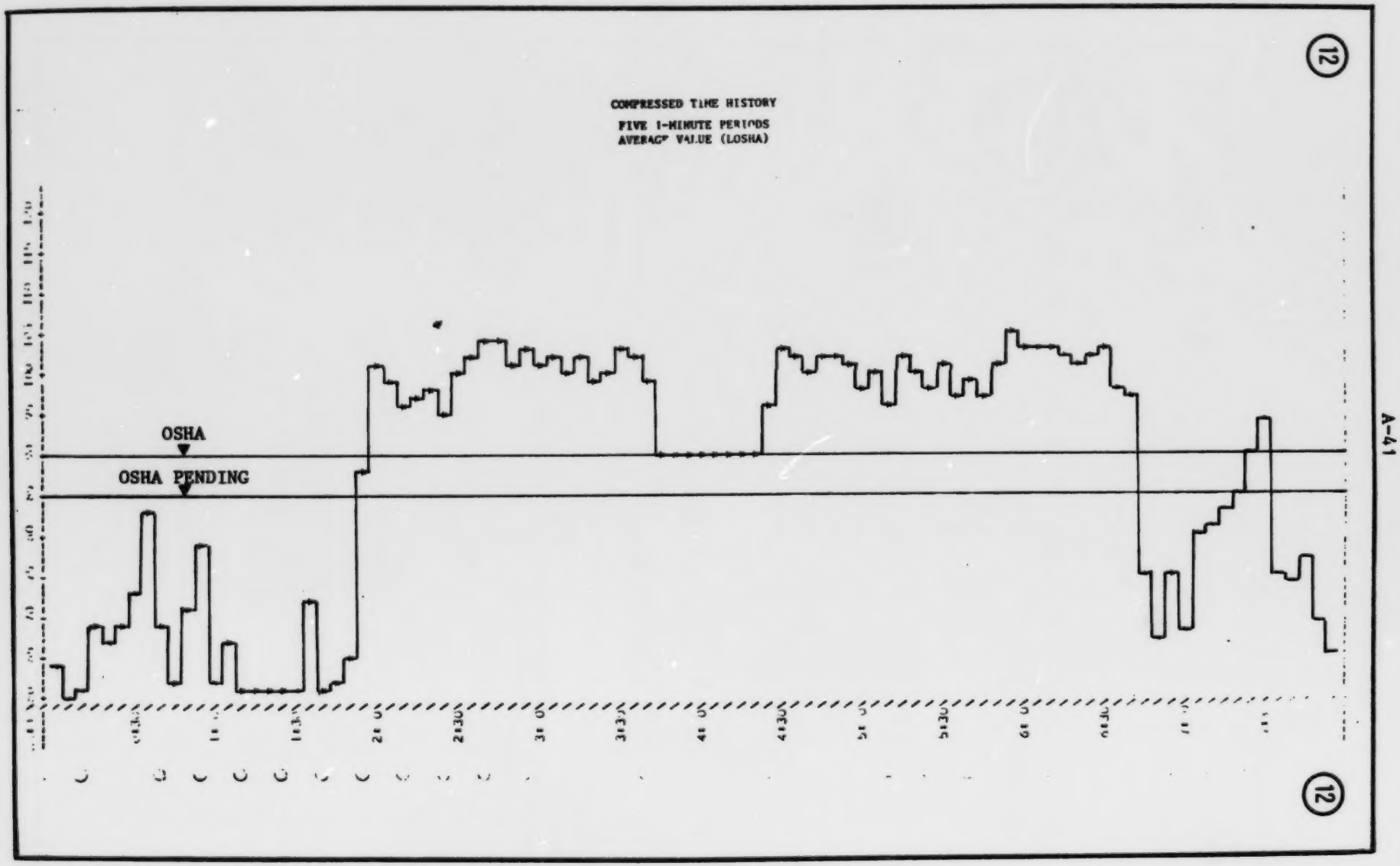
(12)



FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
95	19.8	60 TO 64
24	5.0	65 TO 69
20	4.2	70 TO 74
20	4.2	75 TO 79
14	2.9	80 TO 84
15	3.1	85 TO 89
75	15.6	90 TO 94
66	13.8	95 TO 99
133	27.7	100 TO 104
18	3.8	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119
TOTAL NO. OF DATA POINTS = 480		

(12)




12
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING
12

(13)

```
PLACE TAPE IN READER THEN TYPE A "SPACE" AND A "RETURN"
  1  26  80  1212    60    64     4     1
     251      115200   480
  60  62  60  60  60  61  60  60  67  61  60  60  60  60  60  60
  60  62  61  63  62  66  61  60  60  75  69  71  71  66  71  63
  71  84  74  82  93  89  83  85  85  85  86  85  92  90  98  95
  94  88  85  86  92  94  79  84  95  95  80  92  93  96  95  95
  90  91  94  94  69  71  60  60  60  60  61  60  64  62  67  64
  63  62  60  61  64  60  60  60  61  60  60  60  60  60  60  60
  66  60  60  74  60  63  60  66  63  60  64  69  66  61  61  65
  64  69  95  99 103 100 104 103 102 103 100  61  70  64  60  60
  60  60  60  60  60  61  60  60  64  60  60  60  60  60  60  60
  60  60  60  60  60  67  66  62  64  69  62  60  62  60  62  67
  60  60  64  60  60  60  60  60  65  62  71  64  62  63  61  66
  61  60  69  63  61  60  71  68  60  81  68  81  80  60  63  73
  60  60  62  60  64  63  67  69  69  65  73  61  75  76  69  75
  82  83  84  84  86  78  82  80  78  82  83  83  81  82  84  90
  90  92  95  95  90  91  95  96  95  97  95  94  98 103 101  90
  91  97  86  79  69  81  77  71  93  92  84  89  80  71  84  90
  97  91  95 102 103 101  85 100 103 102 103 102  95 103 101 100
  83  78  92 102  96  72  60  60  60  60  60  60  60  60  63  60
  60  60  67  77  60  60  60  60  63  60  60  60  62  72  74  64
  69  75  73  72  77  72  72  78  73  80  77  76  89  97  92  84
  85  83  83  94  93  92  94 100 101 104 101 102 103 102 102 103
 101  93 103 101 103 102 103 102 103 100 101 100 103 102 104 102
 103  99  95 103 101 103 103 102 103 103 102  81  83  88  85  85
  84  85  84  87  85  95 102 100 102 102 102 102 102  96  90  89
  86  85  88  99 102  99 101 103 102 102 101 102 102 100  95  99
 103 103 103 103 103 102 102 103 101  99  98  98 102 102 103  86
  78  77  68  81 102 102 100  96  70  60  66  60  71  84  60  66
  66  60  60  60  62  60  61  60  72  65  61  70  71  71  60  60
  60  60  60  60  61  67  68  65  69  82  91  72  61  63  60  62
  66  73  67  74  76  76  82  93  96  91  94  92  86  88  96  92
%EOF


ENTER LOG DATE (DD/MM/YR) : 17/08/79

ENTER SITE CODE (5 CHARS) : ISHAF
ENTER USER CODE (4 CHARS) : 7827
 ENTER JOB CODE (3 CHARS) : CTI


   DATA LOGGED :17  AUG 1979          DATA ANALYZED : 21 SEPT 1979
        LOGGER : DB-301/26                SITE CODE : ISHAF
 SERIAL NUMBER : 1212                      JOB CODE : CTI
      BASELINE : 60 DB                    USER CODE : 7827
 DYNAMIC RANGE : 64 DB                     THRESHOLD : 60 DB
 SAMPLING RATE :  4/SEC              TOTAL SAMPLES =  115200
 TEST DURATION =   8: 0: 0           STANDBY TIME =   0: 1: 2

            TIME HISTORY ANALYSIS

 NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
 ARE BASED ON THE FOLLOWING:
 100% DOSE = 90 DB / 8 HRS
 EXCHANGE (DOUBLING) RATE = 5 DB
 THRESHOLD (CUTOFF) LEVEL = 60 DB
   NUMBER OF COMPUTATIONS = 480
 PERIOD =  1 MINUTES

 TIME          LOGA                          DOSE
 HOUR     CURRENT   CUMULATIVE       CURRENT   CUMULATIVE
    1       84.4        84.4          5.750        5.75
    2       88.0        86.4          9.511       15.26
    3       80.7        85.0          3.446       18.71
    4       87.8        85.8          9.231       27.94
    5       92.7        87.8         18.124       46.06
    6       98.0        90.8         38.136       84.20
    7       94.8        92.7         42.304      126.50
    8       89.9        92.1          7.046      133.55
 MIN. COMP. =  60 DB              MAX. COMP. = 104 DB
 ARITHMETIC MEAN =  79 DB
 STD. DEVIATION =  16 DB
 VARIANCE =  255 DB
```

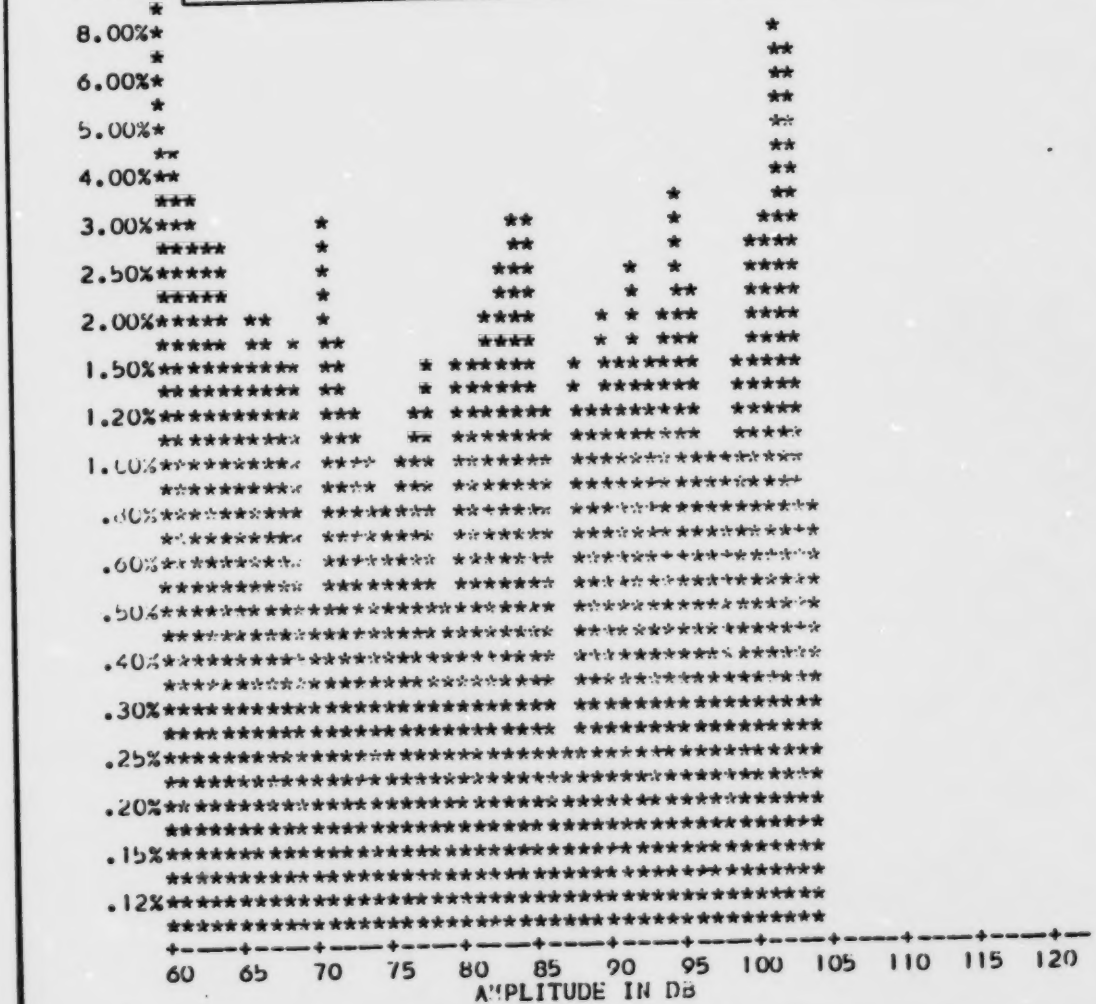
(13)

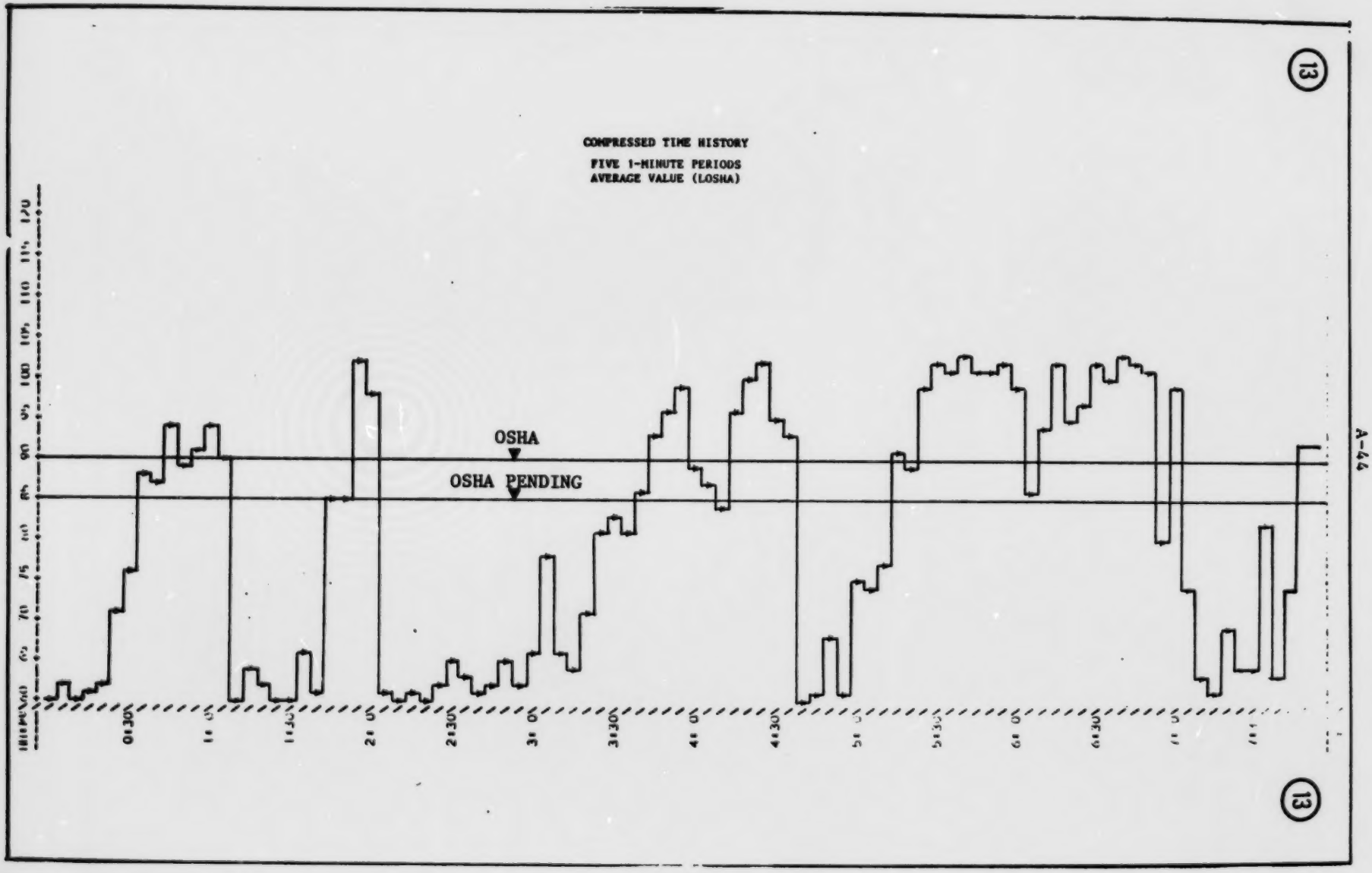
AMPLITUDE DISTRIBUTION

(13)

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
164	34.2	60 TO 64
35	7.3	65 TO 69
30	6.3	70 TO 74
20	4.2	75 TO 79
42	8.8	80 TO 84
29	6.0	85 TO 89
38	7.9	90 TO 94
37	7.7	95 TO 99
85	17.7	100 TO 104
0	0.0	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480




13
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING
13

PLACE TAPE IN READER THEN TYPE A "SPACE" AND A "RETURN"

(14)

```
 1  20  80  1210   60   64    4    1
    470     115200  480
 60  60  60  60  60  60  60  60  60  60  60  60  60  63  60  60
 60  60  61  60  60  60  60  60  60  60  60  60  60  60  60  61
 63  64  60  70  60  73  62  69  73  72  74  67  66  76  68  79
 75  67  62  68  70  60  62  82  60  69  60  60  60  76  69  60
 60  60  60  60  60  60  79  61  60  69  67  63  63  60  78  83
 63  77  65  60  64  60  60  60  70  60  66  76  77  71  67  83
 62  81  60  60  61 102  93  92  90  91  92  90  91  97  98  90
 84  88  90  87  88  90  90  91  95  93  92  97  95  92  92  94
 93  95  93  91  92  95  86  92  99 100 101  95 103  91  94  92
 99 100  97  96  97  93  87  82  82  76  82  96  98  94  95  97
 95  96  94  93  94  92  94  92  94  94  92  95  96  96  90  93
 94  92  88  89  91  97  93  92  93  92  93  92  92  96  95  95
 93  94  95  95  99 101  99 100  98  96  88  92  92  93  93  95
 94  95  96  96  93  92  92  94  94  94  94  93  91  90  91  91
 91  92  91  98  93  90  90  96  92  90  96 100  96  98  98  92
100 101 100 101 101 101 101 101 101 101 101 101 101 102  98  90
 90  90  90  90  80  79  76  77  93  94 102  98 100 102 100 101
100  98 102 100  95  99 100 100  97 100  95  89  89  89  90  91
 89  84  91  98 100 100 101 102 101  99 100 101 101 101  99 102
101 100 101 100 100 101  98 101 101 101 101 101 100 101 102 101
 93  63  60  60  60  60  60  60  60  60  64  71  60  60  61  60
 60  61  60  60  60  60  60  64  72  60  60  60  60  60  99  94
101 103 102 102  99  95 103 102 102 101 103 102  99  98  99  99
104  99 101 102 101 102 103 103 102 102 102 102 103 102 103  94
 99 102 102 102 102 102 103 100 103 103 104 102 102 101 101 102
102 102  98  97 101 102 102  97 102 103 103 101 102 102 102 101
102 103 103 104 105 104 105 104 100 100  99 101  96  78  83  82
 84  79  85  82  87  82  74  61  63  67  65  64  72  73  69  85
 67  60  60  63  69  60  60  60  60  63  60  60  65  60  61  60
 65  60  62  60  65  60  60  60  60  60  60  60  60  60  60  60
%EOF
```

(14)

```
ENTER LOG DATE (DD/MM/YR) : 24/08/79

ENTER SITE CODE (5 CHARS) : 00000
ENTER USER CODE (4 CHARS) : 4272

 ENTER JOB CODE (3 CHARS) : ST5
```

DATA LOGGED :24 AUG 1979
LOGGER : DS-301/26
SERIAL NUMBER : 1216
[illegible] : 60 DB
[illegible] : 94 DB
SAMPLING RATE : 4/SEC
[illegible] = 88 24 0

DATA ANALYZED : 25 SEPT 1979
SITE CODE : 00000
JOB CODE : ST5
USER CODE : 4272
[illegible]
TOTAL SAMPLES = 11200
STANDBY TIME = [illegible]

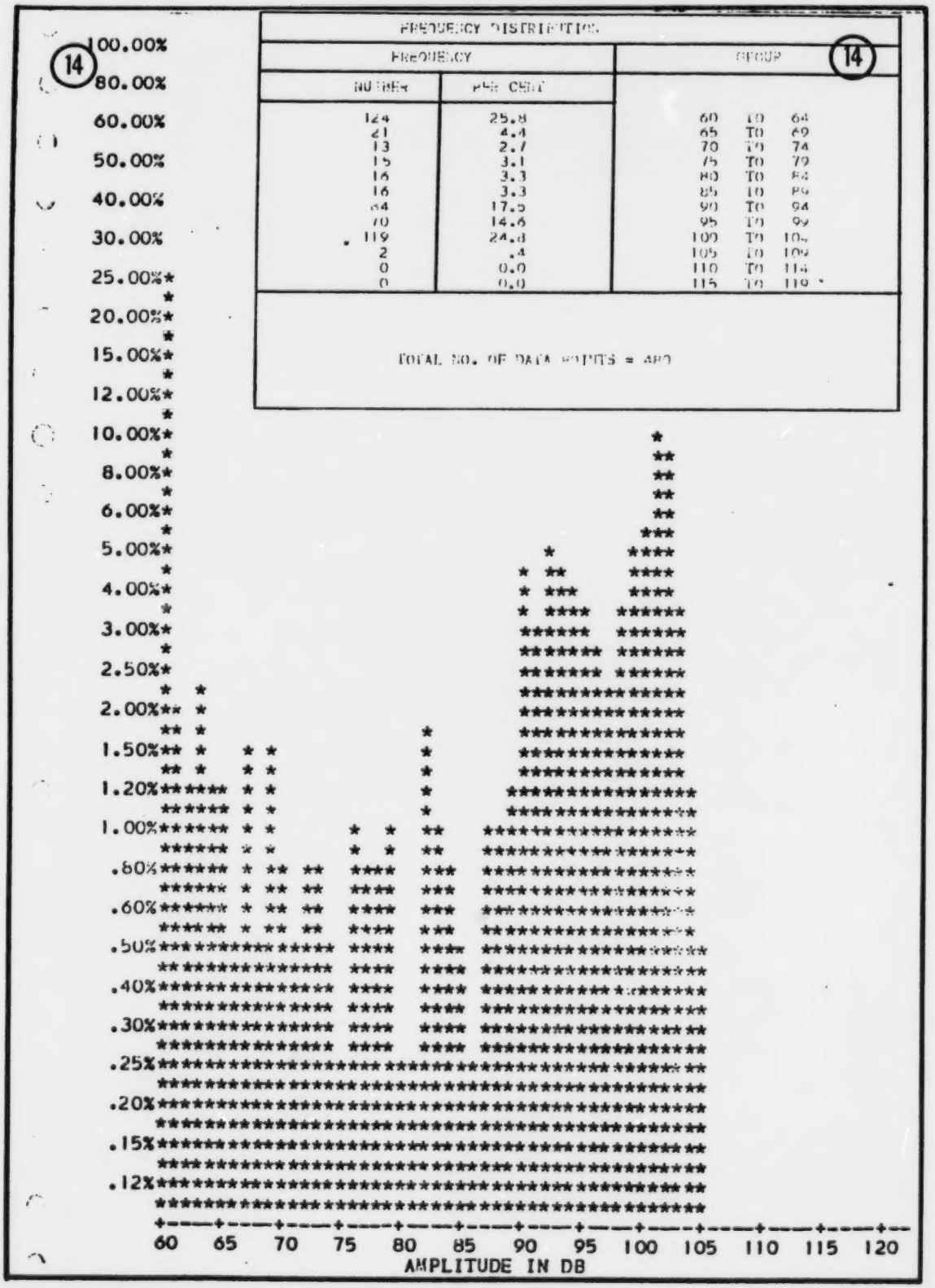
TIME HISTORY ANALYSIS

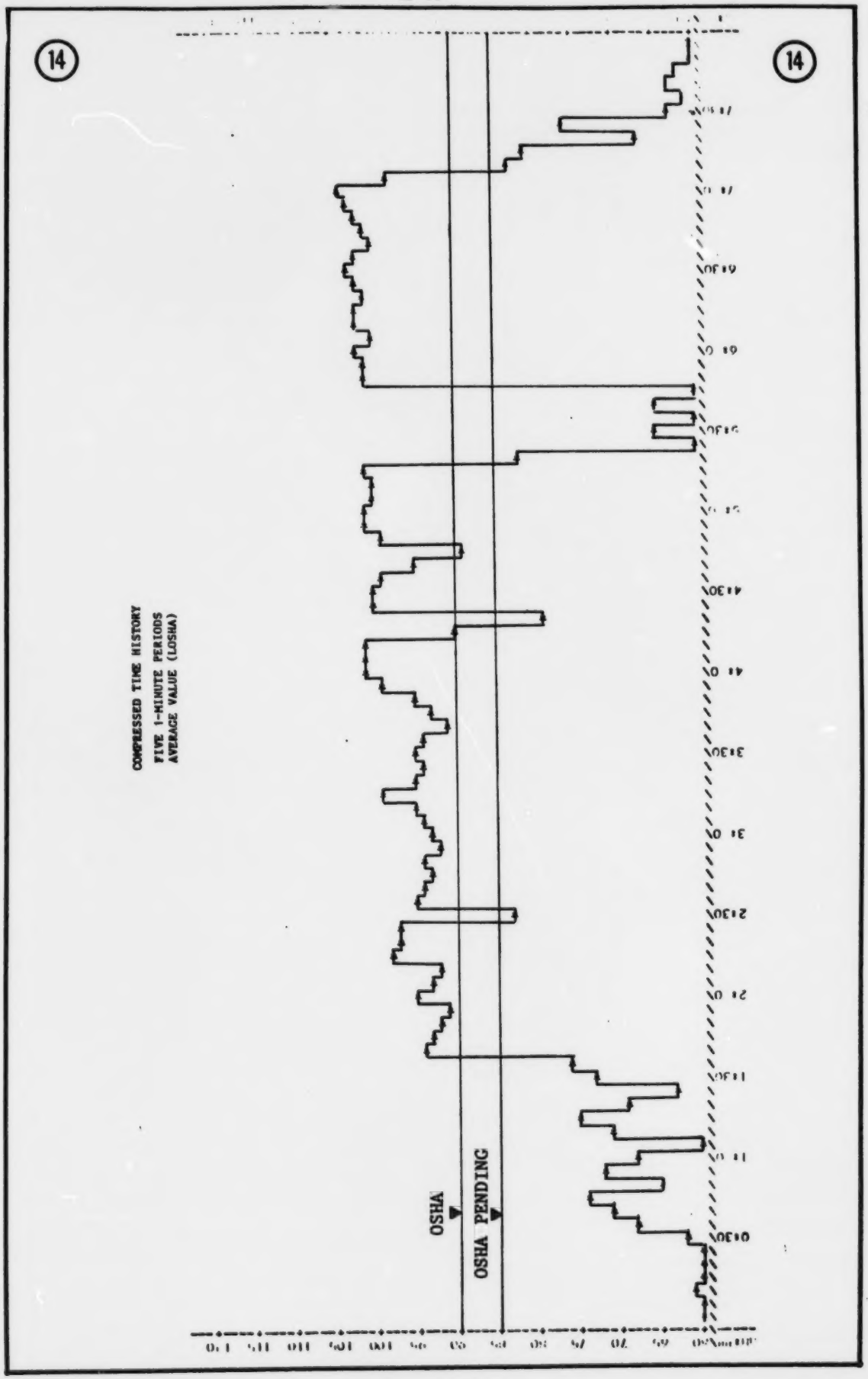
[illegible] EXPOSURE LEVEL (E.E.L.) CALCULATIONS
[illegible] THE POLLSLIB :
[illegible] = 90 DB / 8 HRS
[illegible] (PULSE) TIME = 5 SEC
[illegible] (STEADY) TIME = 60 SEC
NUMBER OF COMPUTATIONS = 480
PERIOD = 1 MINUTES

[illegible]	LEVEL		DOSE	
[illegible]	[illegible] CURRENT	CUMULATIVE	CURRENT	CUMULATIVE
1	86.7	86.7	.492	.49
2	85.4	86.0	6.569	7.06
3	84.4	85.4	22.473	29.53
4	84.1	84.7	29.389	58.92
5	84.1	84.2	4.364	63.49
6	95.9	93.5	28.195	121.68
7	101.7	96.4	62.943	184.63
8	89.1	94.8	11.102	195.73

MIN. CORR. = 60 DB
ARITHMETIC MEAN = 94 DB
STD. DEVIATION = 17 DB
[illegible] =542 DB

MAX. CORR. = 105 DB


14
FREQUENCY DISTRIBUTION
FREQUENCY
NUMBER
PER CENT
GROUP
14
124 25.8 60 TO 64
21 4.4 65 TO 69
13 2.7 70 TO 74
15 3.1 75 TO 79
16 3.3 80 TO 84
16 3.3 85 TO 89
84 17.5 90 TO 94
70 14.6 95 TO 99
119 24.8 100 TO 104
2 .4 105 TO 109
0 0.0 110 TO 114
0 0.0 115 TO 119
TOTAL NO. OF DATA POINTS = 480
100.00%
80.00%
60.00%
50.00%
40.00%
30.00%
25.00%
20.00%
15.00%
12.00%
10.00%
8.00%
6.00%
5.00%
4.00%
3.00%
2.50%
2.00%
1.50%
1.20%
1.00%
.80%
.60%
.50%
.40%
.30%
.25%
.20%
.15%
.12%
60 65 70 75 80 85 90 95 100 105 110 115 120
AMPLITUDE IN DB


14
14
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING

(15)

```
PLACE TAPE IN READER THEN TYPE A 'SPACE' AND A 'RETURN'
  1  26  80  1219    60    64     4     1
     97      115200   480
  60  60  60  65  62  61  60  63  60  60  66  66  66  66  62  63
  63  66  63  64  61  61  60  60  60  60  64  65  60  62  82  98
  99  99  99  99 100  99  99  99 100 100 101 100 103 101 101 101
 101  97  98  98  96  96  98  95  95  93  91  95  96  95  97  99
  98  93  95  95  95  94  94  93  94  94  95  93  93  93  95  96
  97  98 100 100 100  98 102 102 101 100 103 102 103 103 103  99
 100 100 101  98  99 101 102 101 100 100 102 100 102 102 102 102
 102  99 100  99 101  99 100  99  92  92  98 102 100 100 101 101
 101  94  97 102 102 102 102 101  99  97  97 100 100  99  98  99
 100  95  97  97  91  94  99 101  98 101  90  93  93  70  67  73
  76  72  62  68  63  62  62  60  60  61  61  69  79  65  69  60
  73  66  66  64  60  60  60  60  60  83  88  78  62  73  81  64
  60  60  60  60  71  68  60  60  78  68  60  60  60  60  60  70
  69  60  60  60  79  60  60  60  60  74  65  60  60  75  60  60
  60  80  74  61  78  67  60  68  75  60  60  60  79  72  60  60
  60  60  77  75  60  72  61  60  60  60  60  60  68  60  60  64
  60  60  66  60  60  60  60  60  60  60  60  60  60  60  60  66
  60  60  60  60  60  60  60  68  60  60  60  60  60  60  60  60
  60  60  71  63  61  64  68  64  71  60  60  60  62  83  74  62
  88  97  78  72  67  77  75  74  77  81  74  69  71  81  82  87
  82  82  78  81  85  69  60  60  67  60  60  60  63  75  61  62
  65  68  82  85  81  72  70  73  81  79  73  87 103  99  94  92
  88  82  75  76  73  73  75  81  84  83  85  84  81  87  73  67
  82  85  87  85  85  85  85  85  85  81  80  76  80  83  83  84
  84  82  83  82  82  90  93  90  85  86  85  86  84  84  83  84
  84  84  84  84  84  84  85  84  85  84  84  84  85  84  84  82
  83  84  84  82  88  90  85  84  84  84  84  84  80  73  84  87
  69  60  60  60  74  84  86  83  81  81  81  81  81  91  85  90
  95  88  98  88  75  88  87  81  81  73  65  65  79  87  93  76
  78  64  67  69  67  62  65  79  63  73  70  66  72  70  64  61
%EOF
```

(15)

```
ENTER LOG DATE (DD/MM/YR) : 16/08/79
ENTER SITE CODE (5 CHARS) : 00000

ENTER USER CODE (4 CHARS) : 4561
 ENTER JOB CODE (3 CHARS) : RBR
```

```
   DATA LOGGED :16  AUG 1979          DATA ANALYZED : 21 SEPT 1979
        LOGGER : DB-301/26                 SITE CODE : 00000
SERIAL NUMBER : 1219                        JOB CODE : SCH
      BASELINE : 60 DB                     USER CODE : 4561
DYNAMIC RANGE : 64 DB                     THRESHOLD : 60 DB
SAMPLING RATE :  4/SEC                TOTAL SAMPLES =  115200
TEST DURATION =   8: 0: 0           STANDBY TIME =   0: 0:24
```

TIME HISTORY ANALYSIS

NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
ARE BASED ON THE FOLLOWING
100% DOSE = 90 DB / 8 HRS
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CUTOFF) LEVEL = 60 DB
NUMBER OF COMPUTATIONS = 460
PERIOD = 1 MINUTES

TIME	LOGIA		LOGIC	
HOUR	CURRENT	CUMULATIVE	CURRENT	CUMULATIVE
1	93.7	93.7	20.859	20.86
2	99.3	97.0	45.192	66.05
3	96.3	96.5	25.977	92.02
4	71.0	94.5	.901	92.93
5	63.7	92.9	.325	93.25
6	83.9	92.0	5.387	98.64
7	84.3	91.3	5.473	104.11
8	83.4	90.6	4.989	109.10

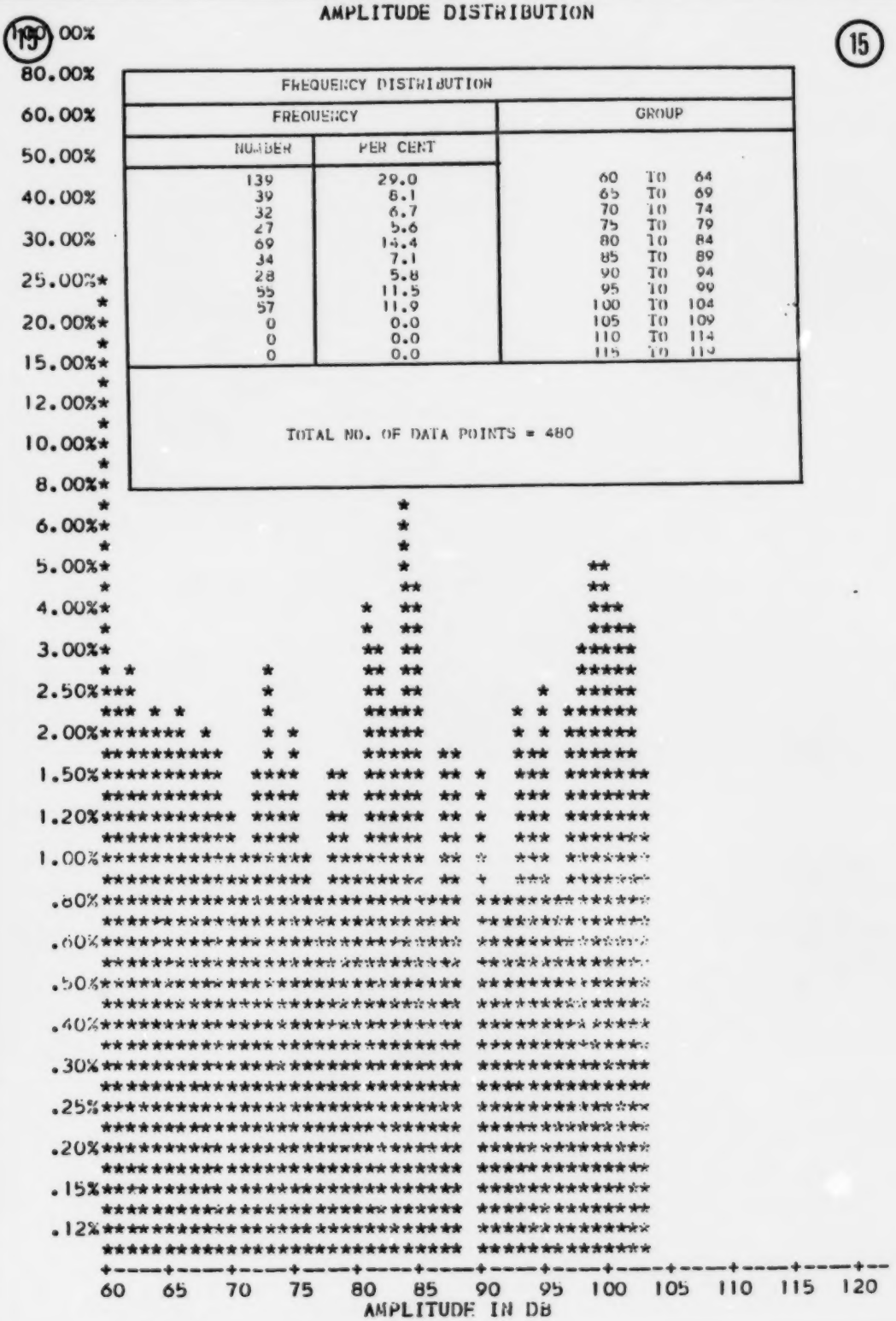
MIN. COMP. = 60 DB MAX. COMP. = 103 DB
ARITHMETIC MEAN = 78 DB
STD. DEVIATION = 15 DB
VARIANCE =229 DB

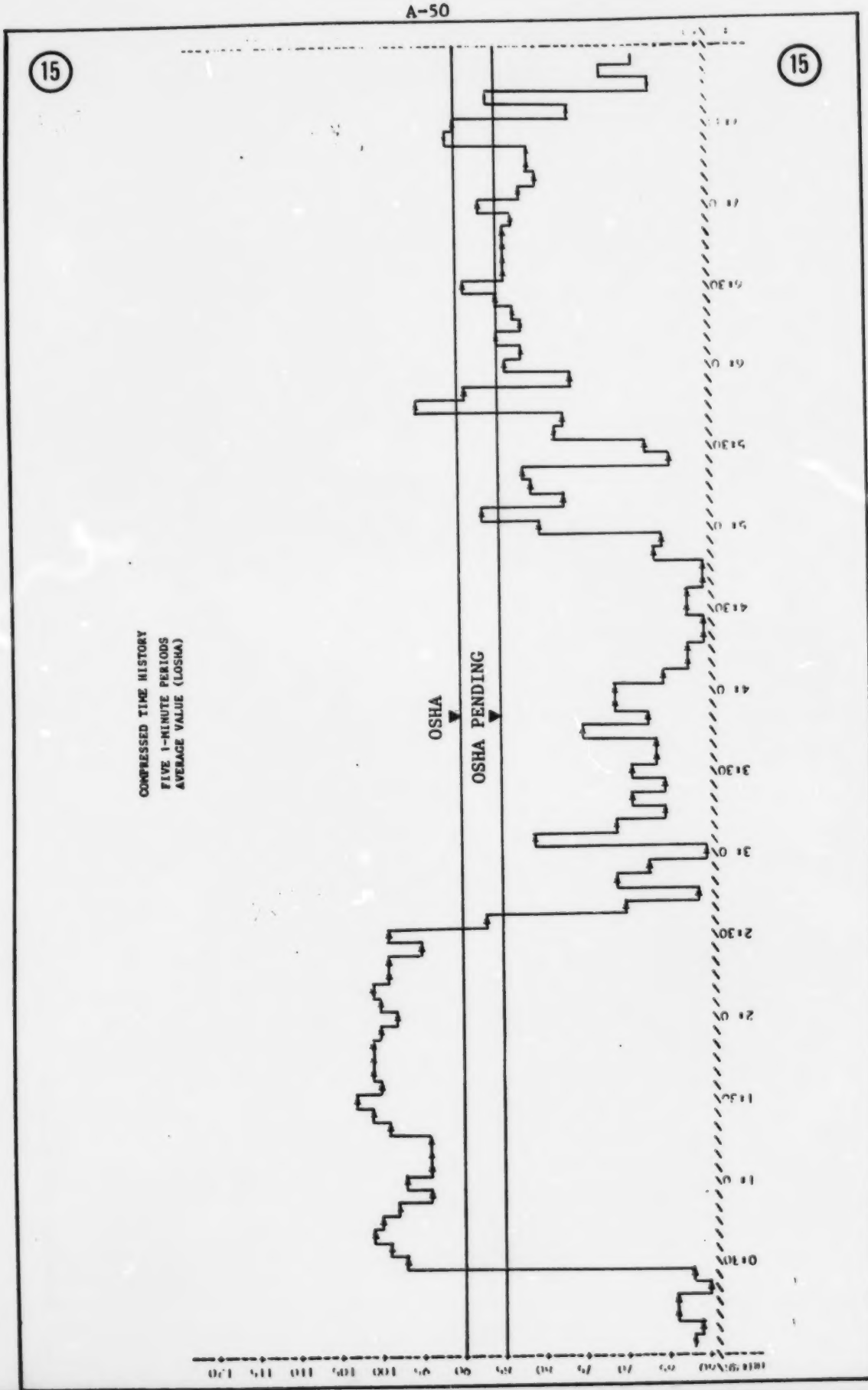
AMPLITUDE DISTRIBUTION

(19) (15)

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
139	29.0	60 TO 64
39	8.1	65 TO 69
32	6.7	70 TO 74
27	5.6	75 TO 79
69	14.4	80 TO 84
34	7.1	85 TO 89
28	5.8	90 TO 94
55	11.5	95 TO 99
57	11.9	100 TO 104
0	0.0	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480




15
15
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING

16

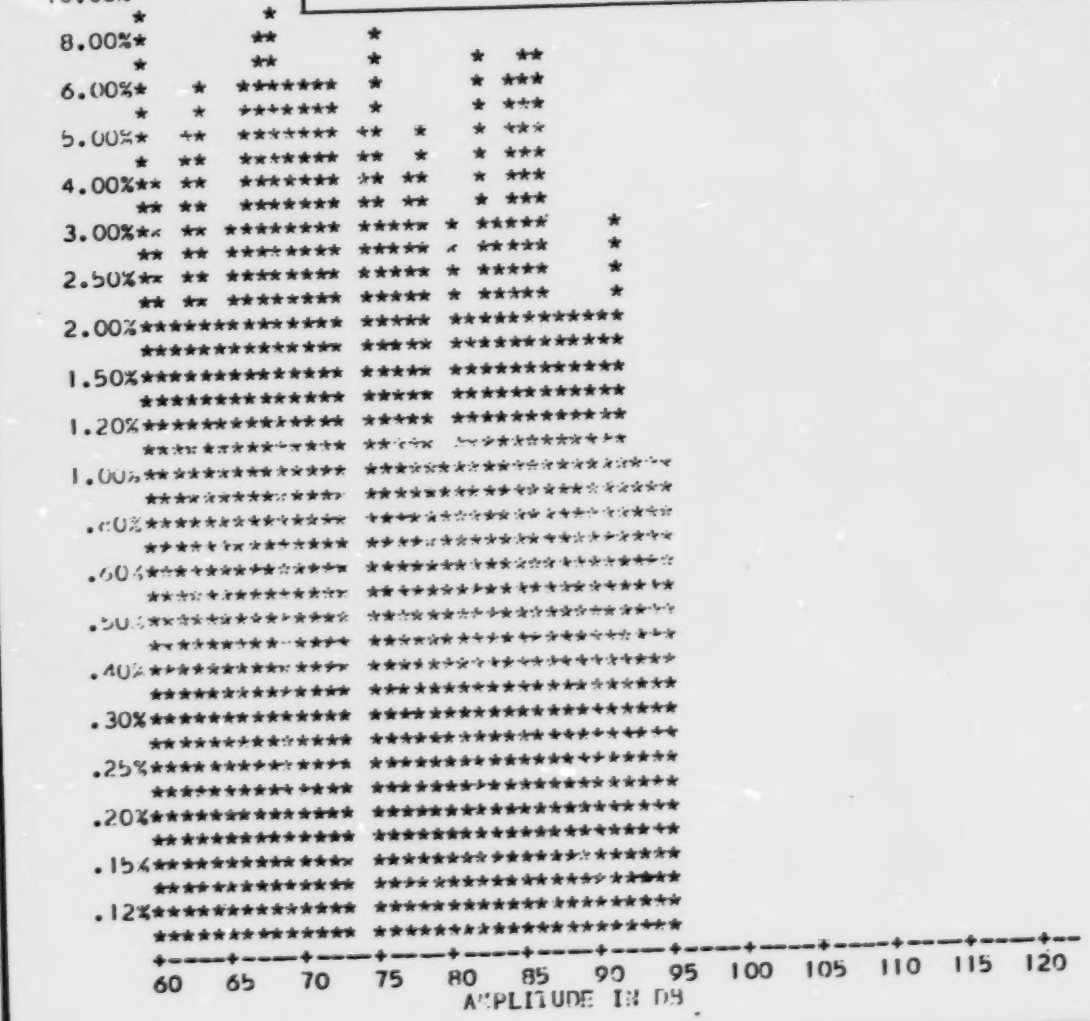
```
1  26  80  1221    60    64    4    1
 110574        36955   153
63  61  68  61  69  76  79  80  67  60  60  63  60  64  60  61
63  60  66  71  75  67  66  67  75  73  81  72  73  72  72  76
71  72  70  70  63  72  71  67  68  64  60  60  64  68  64  72
75  75  70  65  69  63  62  68  68  69  71  66  67  60  60  64
[illegible]
[illegible]
[illegible]
[illegible]
60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
```

AMPLITUDE DISTRIBUTION

(16)

FREQUENCY DISTRIBUTION		
FREQUENCY		DB
NUMBER	PER CENT	
353	73.5	60 TO 64
28	5.8	65 TO 69
24	5.0	70 TO 74
25	5.2	75 TO 79
16	3.3	80 TO 84
24	5.0	85 TO 89
9	1.9	90 TO 94
1	.2	95 TO 99
0	0.0	100 TO 104
0	0.0	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480

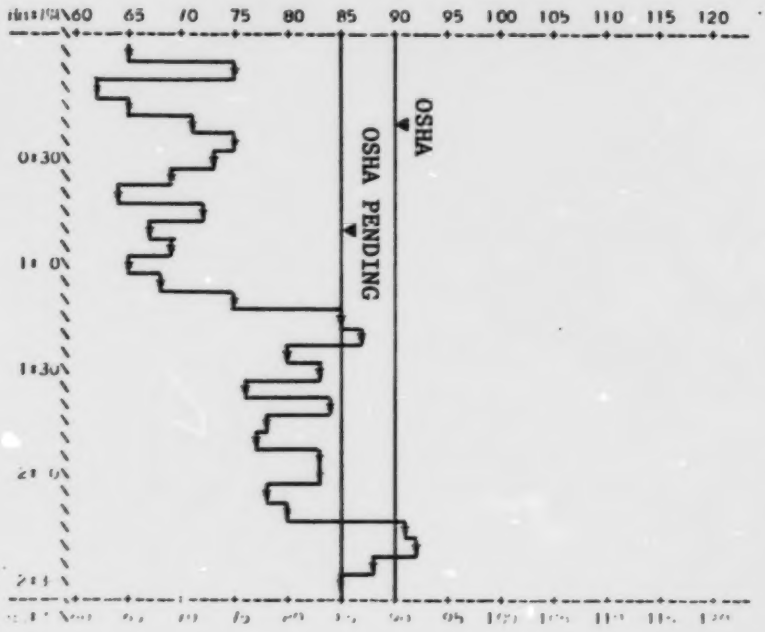


16

16

COMPRESSED TIME HISTORY
FIVE 1 MINUTE PERIODS

AVERAGE VALUE (LOSHA)



(17)

PLACE TAPE IN READER THEN TYPE A "SPACE" AND A "RETURN"
1 26 80 1221 60 64 4 1
104 38/64 161

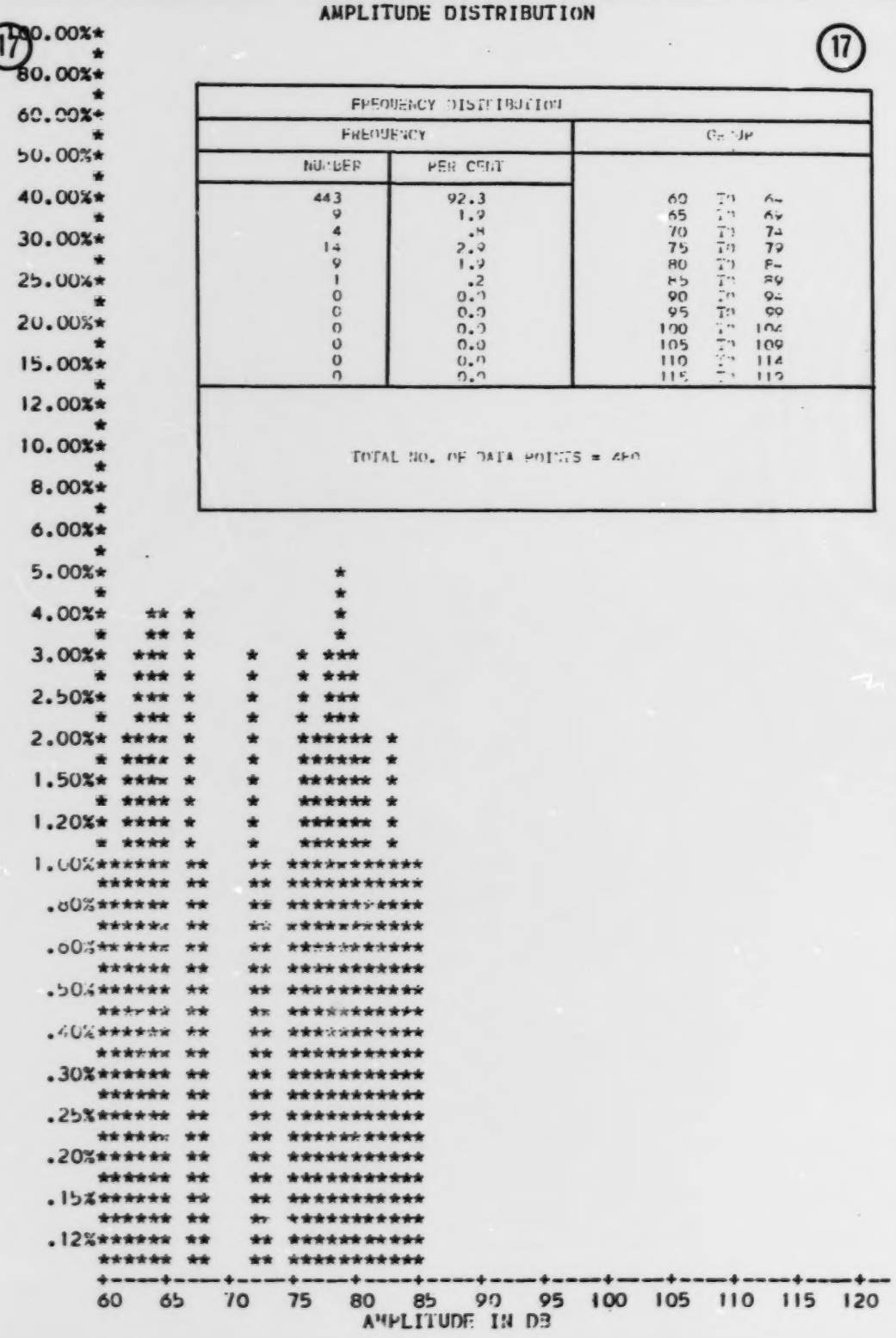
60	60	60	60	60	60	60	60	60	60	60	67	63	60	60	63
64	66	64	60	60	60	60	60	60	60	60	61	62	60	60	60
65	70	72	74	76	81	78	77	73	76	75	76	73	74	70	70
72	67	62	65	61	70	64	70	66	67	62	62	60	60	60	63
60	64	60	60	60	60	60	60	60	60	61	65	60	60	60	60
60	60	60	60	60	60	60	60	60	60	60	60

AMPLITUDE DISTRIBUTION

(17) (17)

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
443	92.3	60 TO 64
9	1.9	65 TO 69
4	.8	70 TO 74
14	2.9	75 TO 79
9	1.9	80 TO 84
1	.2	85 TO 89
0	0.0	90 TO 94
0	0.0	95 TO 99
0	0.0	100 TO 104
0	0.0	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

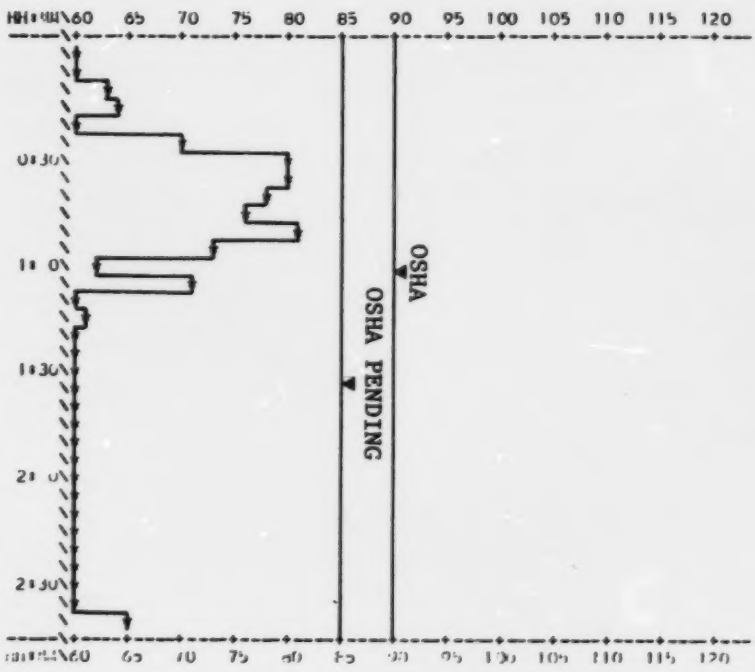
TOTAL NO. OF DATA POINTS = 480



(17) (17)

COMPRESSED TIME HISTORY
FIVE 1 MINUTE PERIODS

AVERAGE VALUE (LOSHA)



(18)

PLACE TAPE IN READER THEN TYPE A "SPACE" AND A "RETURN"

(18)

```
 1  26  80  1222   60   64    4    1
   114     115200  480
 62  60  60  60  66  63  61  60  64  60  61  60  60  60  71  70
 77  78  61  75  61  66  66  60  63  64  72  71  70  74  66  61
 72  76  76  77  79  82  77  75  82  72  72  67  79  78  74  84
 76  77  68  74  75  76  74  78  75  78  65  65  74  64  64  68
 68  69  69  78  80  76  70  79  81  80  79  79  76  73  61  60
 61  [illegible]
 94  [illegible]
 92  [illegible]
 92  83  75  82  83  89  89  94  91  88  90  90  92  89  89 103
 94  [illegible]
 93 100 100  99 101 101 101  98 100 100  97  87  86  95  93  83
 90  86  84  88  98 102 107  95  82  82  91  92  97  99  89  92
 91  [illegible]
 89  86  92  88  94  96  90  92  92  89  93  94  97 100 106  96
 89  87  86  91 104 100  84  89  87  71  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  62  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  62
 67  60  82  93  86  90  91  65  69  87  92  93  95  94  95  94
 94  95  95  94  84  66  70  77  80  81  92  88  89  90  94  91
 92  95  94  94 101 102  98  96 100 101 100 100 102 101 101 100
100 101 101  99 102 103 102 102 103 101 103 101  97 102 101  99
100 101  95  86  87  93  92  88  94  88  96 101  99 102  99 100
101 103 101 102 100  99  99  99  99 100 100  99  96  91  87
 83  95  92  90  93  90  92  90  99 100 102 101 100 100 101 100
%EOF
```

```
ENTER LOG DATE (DD/MM/YR) : 12/09/79
ENTER SITE CODE (5 CHARS) : 00307
4199
ENTER USER CODE (4 CHARS) :
 ENTER JOB CODE (3 CHARS) : 213
```

DATA LOGGED :12 SEPT 1979
[illegible] : [illegible]
[illegible] : [illegible]
[illegible] : [illegible]
[illegible] : [illegible]
[illegible] = [illegible]

DATA ANALYZED : 27 SEPT 1979
SITE CODE : 00307
[illegible] : 213
[illegible] : 4199
[illegible] : 80
TOTAL [illegible] = [illegible]
[illegible] = [illegible]

[illegible]

[illegible] CALCULATIONS
[illegible]
[illegible] = [illegible]
[illegible]
[illegible]
NUMBER OF COMPUTATIONS = 480
RESULTS = 1 VELOCITY

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	73.0	73.0	1.1[illegible]	1.19
2	80.7	82.7	7.9[illegible]	9.0[illegible]
3	[illegible]	[illegible]	17.[illegible]	[illegible]
4	[illegible]	[illegible]	26.[illegible]	51.[illegible]
5	82.0	[illegible]	.1[illegible]	51.[illegible]
6	80.0	87.3	.19[illegible]	51.4[illegible]
7	90.0	[illegible].7	21.[illegible]	[illegible]
8	90.7	91.0	41.[illegible]	[illegible].41

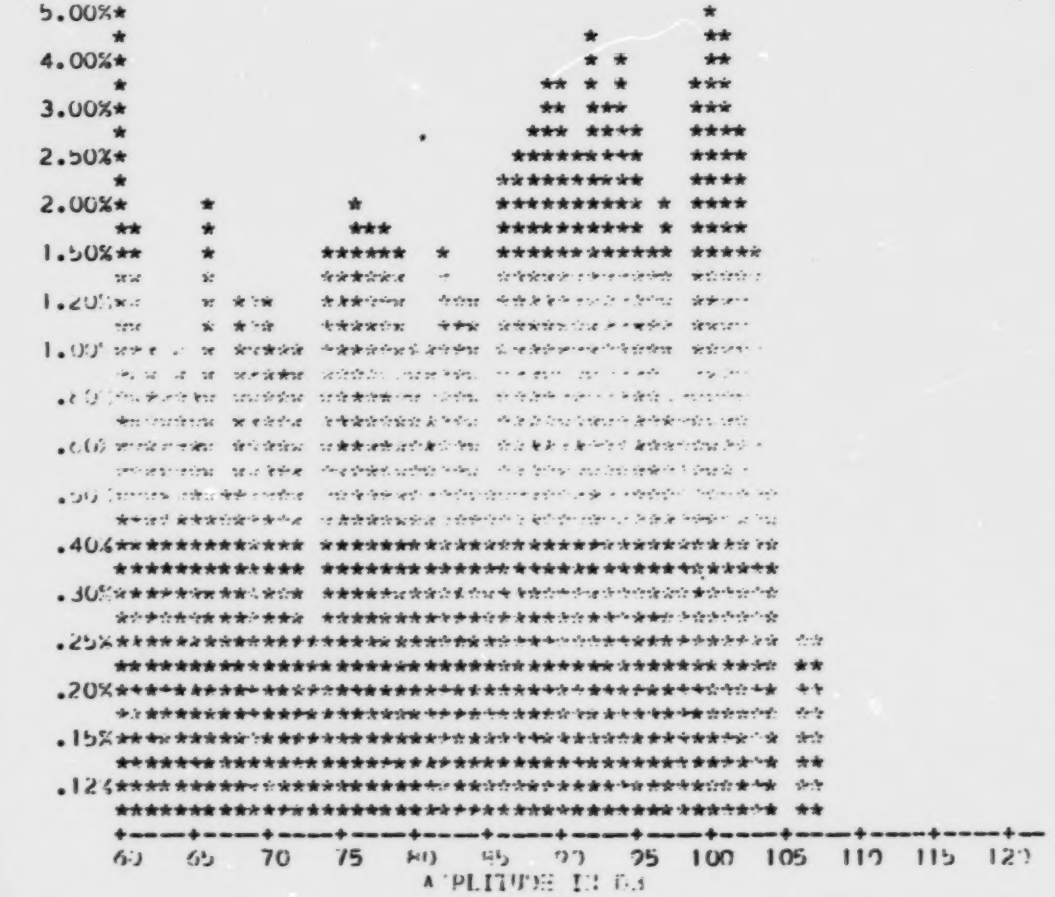
ALL CHA. = 80 DA. MAX. CHA. = 107 DA.
ALLOWABLE [illegible] =
SIG. [illegible] =
VALI[illegible] =

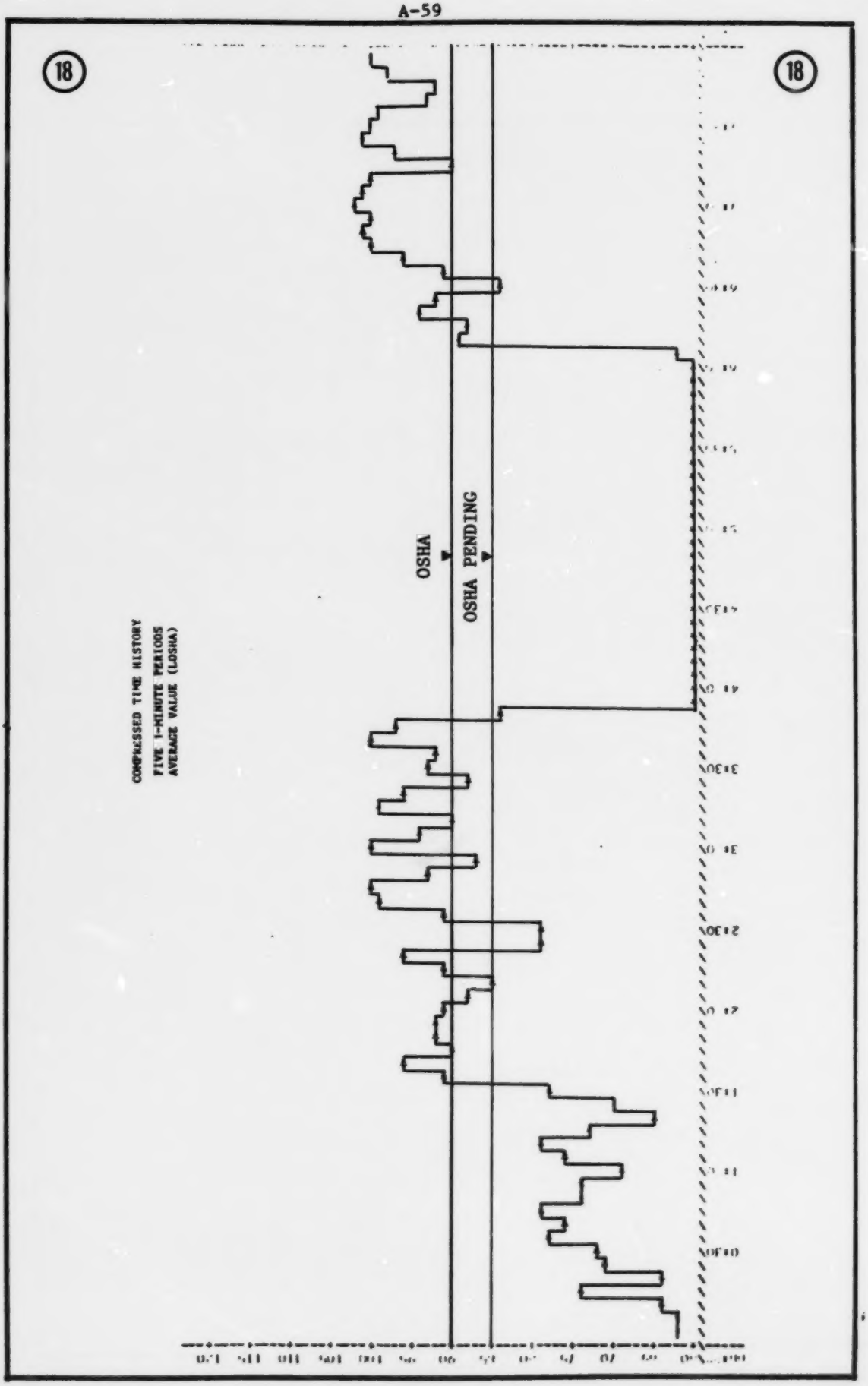
AMPLITUDE DISTRIBUTION

(18) (18)

FREQUENCY DISTRIBUTION		
FREQUENCY		DB
NUMBER	PER CENT	
192	33.4	60 TO 64
23	4.9	65 TO 69
20	4.2	70 TO 74
34	7.1	75 TO 79
24	5.0	80 TO 84
46	9.6	85 TO 89
70	14.6	90 TO 94
42	8.8	95 TO 99
57	11.9	100 TO 104
2	.4	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480




18
18
OSHA
OSHA PENDING
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)

(19)

```
PLACE TAPE IN READER THEN TYPE A 'SPACE' AND A 'RETURN'
  1  26  80  1216    60    64     4     1
     27      115200   480
 60  61  69  61  69  61  60  60  65  60  60  60  61  60  60  60
 60  60  60  67  72  72  62  73  66  68  72  70  71  69  75  72
 72  67  66  74  72  75  64  77  78  71  69  76  82  77  69  64
 68  71  66  63  65  67  68  70  69  73  63  69  71  64  64  75
 64  72  72  72  74  71  71  77  76  66  60  66  60  63  64  67
 64  60  60  72  73  73  74  75  72  68  67  64  70  64  67  64
 61  66  62  62  69  64  75  68  66  60  60  60  60  61  60  60
 71  65  72  77  69  70  77  86  88  98  92  83  94  85  91  92
 91  91  92  91  92  94  97 100  91  95  86  77  85  81  85  77
 82  80  83  73  69  80  77  82  84  68  66  71  80  72  76  72
 65  72  73  75  70  85  86  84  81  82  90  85  89 103 100  95
105 105 103  91  91  81  87  89  87  87  91  92  77  94  92 101
101  87  92  80  72  83  96  98  80  81  81  77  67  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  62  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  64  83  84  86  86  87  88  94  93
 94  93  92  77  74  69  81  93  83  87  88  87  87  87  87  86
 87  87  88  87  87  87  89  88  88  86  86  89  91  88  90  86
 78  88  89  88  84  89  84  97  93  96  95  92  92  92  92  91
 90  95  95  87  85  87  84  84  85  94  88  93  96  98  97  96
 97  97  92  90  92  81  85  95  99  95  95  99 100  91  90  86
 79  87  93  94  98  97  93  92  98  97  97  95  97  95  97  96
 95  90  97  95  95  91  92  86  71  83  80  75  83  91  95  92
 95  94  96  97  99  96  97  96  97  92  83  85  84  88  88  81
 68  60  60  60  60  65  62  60  64  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
```

(19)

```
ENTER LOG DATE (DD/MM/YR) : 13/09/79
ENTER SITE CODE (5 CHARS) : 00307
ENTER USER CODE (4 CHARS) : 4277
 ENTER JOB CODE (3 CHARS) : 213

   DATA LOGGED :13 SEPT 1979          DATA ANALYZED : 27 SEPT 1979
        LOGGER : GS-3G1Z6                  SITE CODE : 00307
SERIAL NO.LOG : 1215                     JOB CODE : 213
     LOG ID   : 00 3                     USER CODE : 4277
CHAN IN USE   : 4 5 8                    DATE CODE : 27/09/79
OPERATOR CODE : 4277C                    TOTAL SAMPLES = 1152
NO. CHANNELS  =  3  : 3                  STAGE 2 IT    =  48  8
```

LIFE HISTORY ANALYSIS

```
LOG-LOG PLOT OF I  BY (...I.) CALCULATIONS
ALL ANALYSIS ARE BASED ON I %
IN THE RANGE OF 7 TO
(...) ( . . I) . . . = . . .
HARMONIC (GEOMETRIC) MEAN = 40.14
  NUMBER OF COMPUTATIONS = 480
PERIOD =  1 MINUTES
```

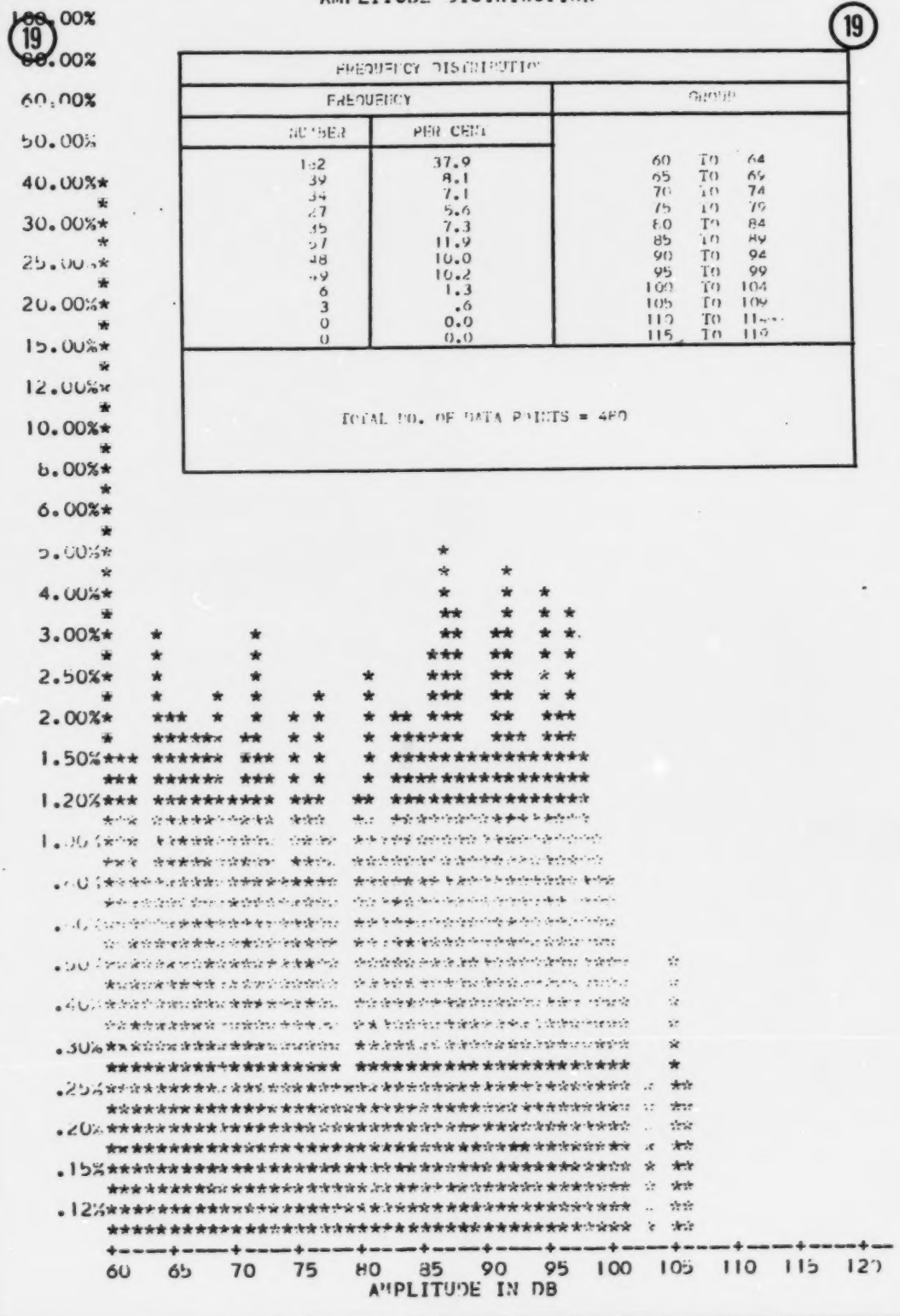
AGE	INTERVAL	CUMULATIVE	INCREMENT	CUMULATIVE
1	69.6	69.6	.740	.74
2	72.1	71.9	1.043	1.78
3	91.5	84.9	15.673	17.46
4	89.9	84.9	7.126	24.58
5	64.0	83.4	.595	25.18
6	89.6	84.9	11.753	36.93
7	64.9	82.1	21.516	58.44
8	71.6	80.6	3.476	61.92

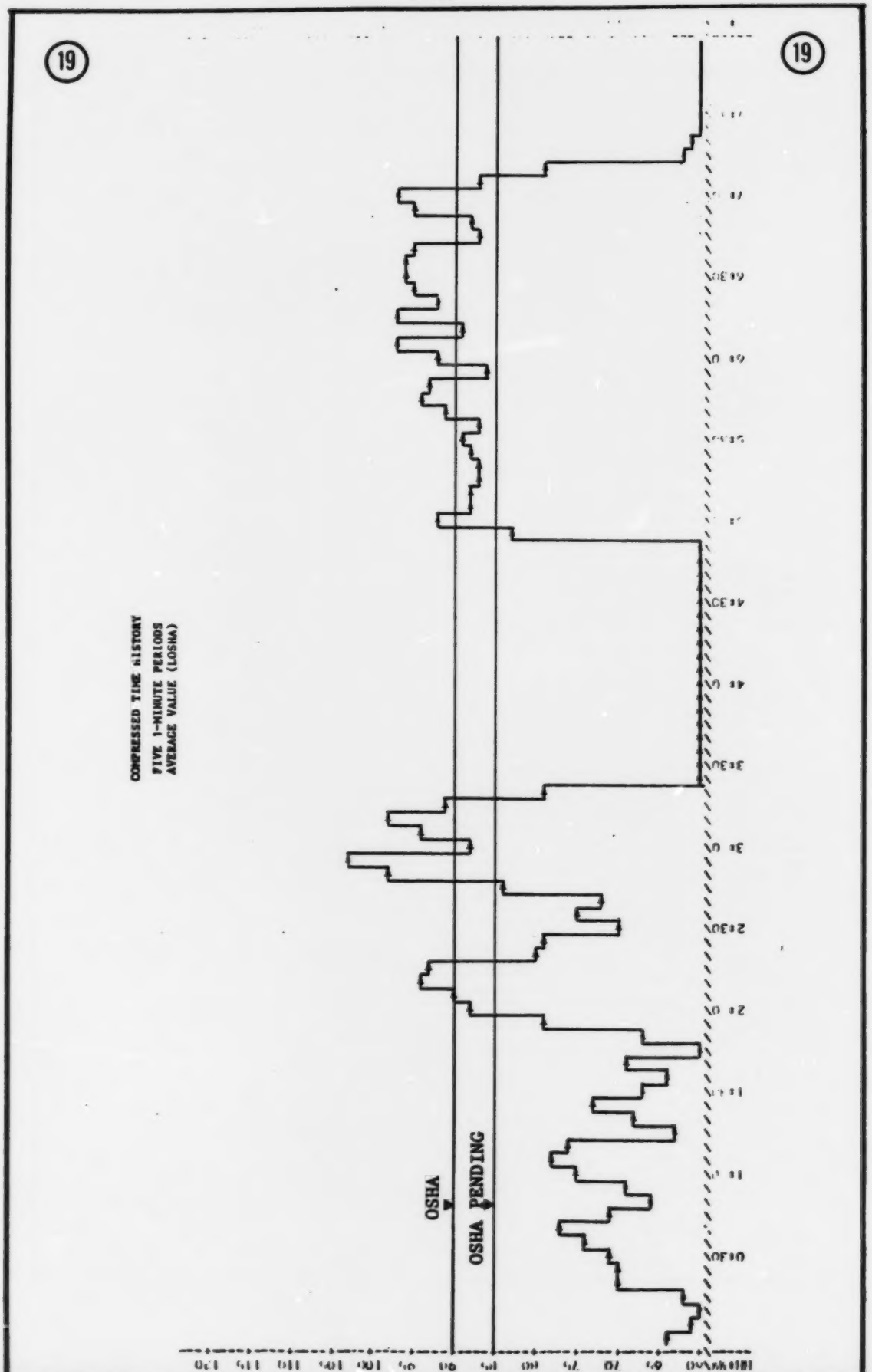
```
MIN. CORR. = 60 PE                MAX. CORR. = 100 PE
ARITHMETIC MEAN =  75 PE
GEO. STD. DEV. =  14 PE
CHI-SQUARE =140 PE
```

AMPLITUDE DISTRIBUTION

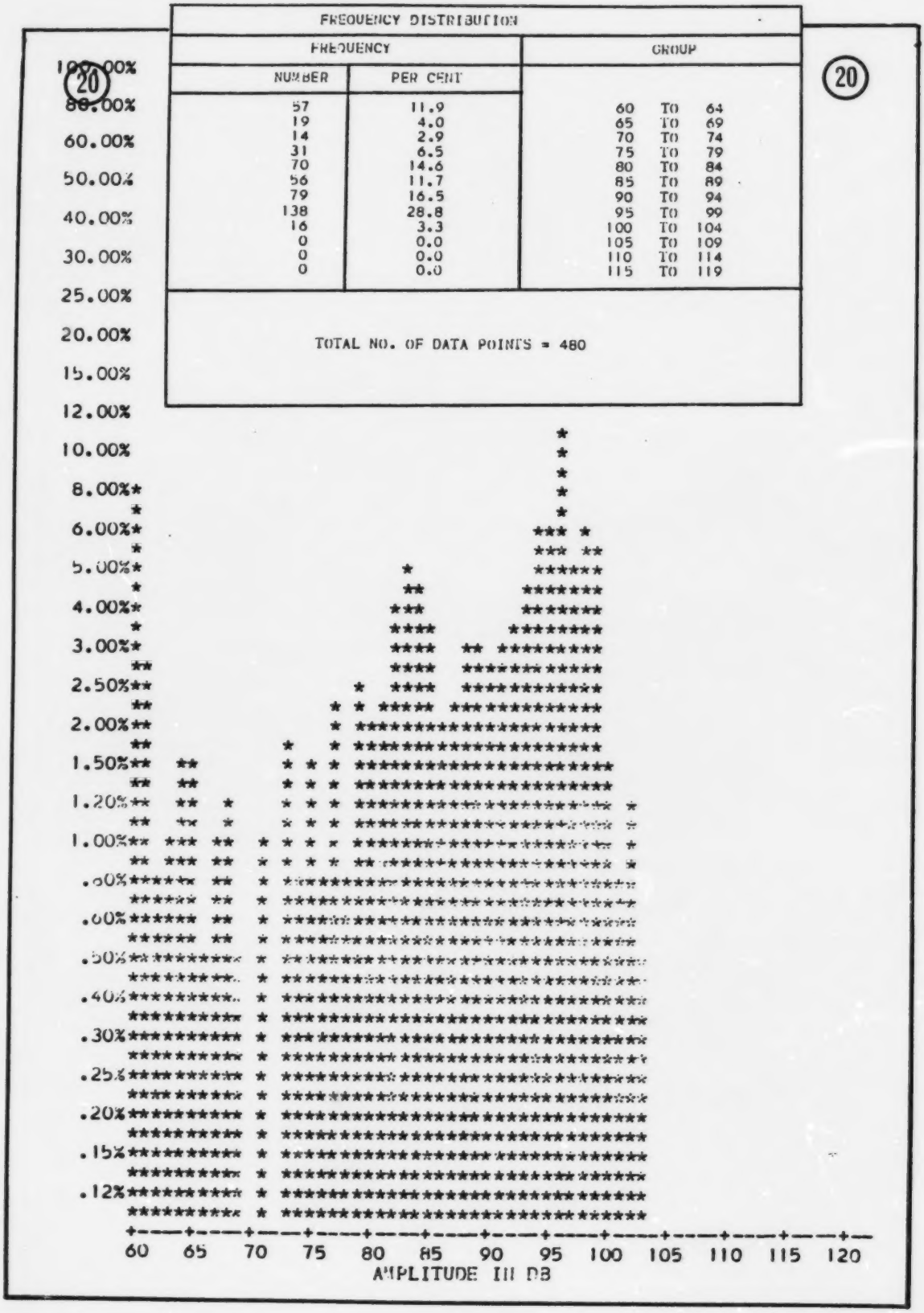
(19) (19)

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
132	37.9	60 TO 64
39	8.1	65 TO 69
34	7.1	70 TO 74
27	5.6	75 TO 79
35	7.3	80 TO 84
57	11.9	85 TO 89
48	10.0	90 TO 94
49	10.2	95 TO 99
6	1.3	100 TO 104
3	.6	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119
TOTAL NO. OF DATA POINTS = 480		




19
19
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING

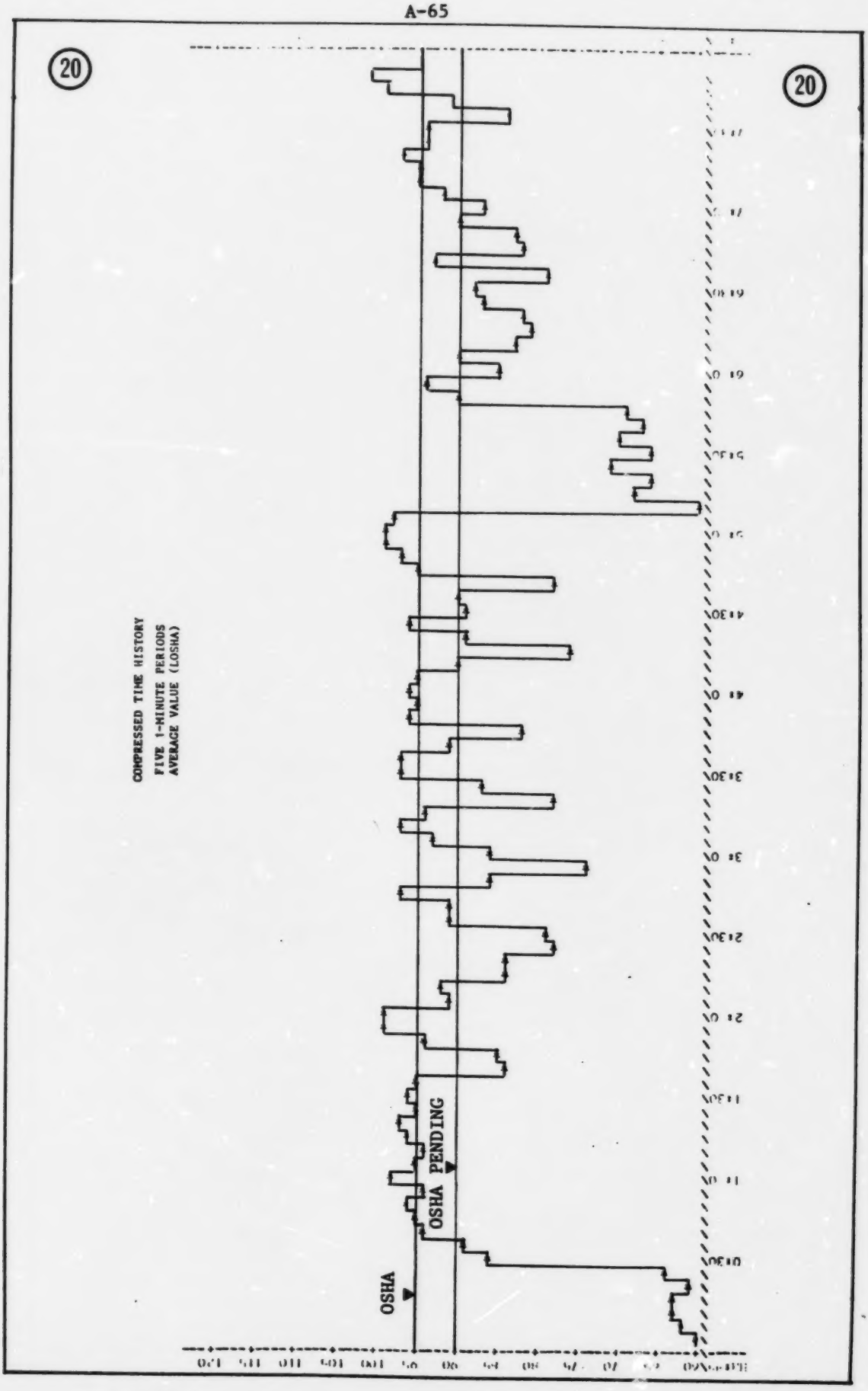
```
PLACE TAPE IN READER THEN TYPE A 'SPACE' AND A 'RETURN'
  1  26  80  1225   60   64    4    1
      79      115200  480
 61  60  60  60  60  60  60  67  60  61  64  61  63  65  63  64
 60  61  67  60  64  60  60  60  61  62  61  64  65  65  61  63
 81  94  88  89  88  88  88  92  89  89  91  96  99  98  94  94
 86  97  94  96  96  99  96  96  97  95  88  87  94  95  96  99
102  96  94  94  97  96  93  98  94  90  91  97  91  96  94  96
 94  89  97 102  98  94  90  95  96  96  88  96  89  96  96  96
 96  96  96  86  88  84  84  89  85  83  82  84  90  85  75  90
 95  95  98  96  97  97 100 103 102  99  98  99  98  88  89  93
 92  92  91  91  93  92  87  87  92  82  83  84  91  84  85  87
 83  75  80  81  77  77  82  84  79  71  74  76  93  97  85  86
 84  87  92  93  94  95  96  98  98  99  89  84  92  81  71  84
 66  60  60  65  64  85  83  89  91  83  95  94  93  94  95  96
 98  98  97  98  98  95  83  73  78  78  77  80  77  84  82  79
 83  94  96  97  96  99  96  96  96  97  97  97  96  93  79  92
 82  81  82  84  80  83  88  94  97  97  98  96  93  93  96  96
 99  95  94  94  95  96  96  95  95  95  97  91  88  92  79  79
 74  79  71  69  69  73  81  94  95  95  95  98  95  96  92  86
 86  90  91  92  92  88  91  85  75  73  75  79  83  92  95  95
 96  95  93  97  99  98  98  99 100 100  98  99  97  98  96 101
101 102  99  99  95  90  61  60  60  61  60  77  60  67  60  60
 60  71  60  65  68  80  64  60  62  64  60  75  60  60  60  60
 79  61  68  60  61  60  73  65  67  60  73  73  66  62  60  68
 60  95  97  96  94  98  93  84  87  85  83  83  84  90  89  90
 91  91  84  82  82  83  85  82  82  81  80  79  79  84  83  80
 83  76  80  85  86  94  81  80  94  85  90  76  77  78  84  77
 83  77  87  99  98  83  77  81  83  82  84  82  83  83  82  93
 89  88  90  87  89  87  87  84  85  86  88  91  93  96  90  94
 96  97  96  95  94  93  96  96  98 100  96  92  96  95  93  96
 93  92  94  96  96  93  92  91  73  75  82  85  85  85  85  89
 99  99 100  99 100  99 102 103 101  99  99  99  98  98  74  63
:EOF


ENTER LOG DATE (DD/MM/YR) : 16/08/79
ENTER SITE CODE (5 CHARS) : 00000
ENTER USER CODE (4 CHARS) : 4606
 ENTER JOB CODE (3 CHARS) : DUX


   DATA LOGGED :16  AUG 1979          DATA ANALYZED : 21 SEPT 1979
        LOGGER : DB-301/25                SITE CODE : 00000
 SERIAL NUMBER : 1225                     JOB CODE : DUX
      BASELINE : 60 DB                  USER CODE : 4606
 DYNAMIC RANGE : 64 DB                  THRESHOLD : 80 DB
 SAMPLING RATE :  4/SEC            TOTAL SAMPLES =  115200
 TEST DURATION =   8H 0M 0S          START TIME =  0H 0M19


              TIME HISTORY ANALYSIS

 NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
 ARE BASED ON THE FOLLOWING
 100% LEVEL = 90 DB / 8 HR
 EXCHANGE (DOUBLING) RATE = 5 DB
 THRESHOLD (CUTOFF) LEVEL = 80 DB
   NUMBER OF COMPUTATIONS = 480
 PERIOD =  1 MINUTES

 TIME          1 HOUR                      24 H
 HOUR     COMP.DB   CUMULATIVE     COMP.DB   CUMULATIVE
    1        88.2        88.2       9.751        9.75
    2        95.0        92.4      25.129       34.88
    3        90.6        91.8      13.944        4.45
    4        92.9        92.1      18.621       67.10
    5        93.3        92.4      19.739       86.84
    6        88.4        91.8       9.992       96.83
    7        86.4        91.3       7.619      104.45
    8        94.9        91.9      24.413      128.20
 MIN. COMP. =  60 DB              MAX. COMP. = 103 DB
 ARITHMETIC MEAN =  85 DB
 STD. DEVIATION =  12 DB
 VARIANCE =144 DB
```



FREQUENCY DISTRIBUTION

FREQUENCY		GROUP
NUMBER	PER CENT	
57	11.9	60 TO 64
19	4.0	65 TO 69
14	2.9	70 TO 74
31	6.5	75 TO 79
70	14.6	80 TO 84
56	11.7	85 TO 89
79	16.5	90 TO 94
138	28.8	95 TO 99
16	3.3	100 TO 104
0	0.0	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480


20
20
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING

PLACE TAPE IN READER THEN TYPE A "SPACE" AND A "RETURN"

(21)

```
 1  26  80  1217   60   64    4    1
    427      115200  480
 60  60  60  60  60  60  60  61  67  65  63  60  60  60  60  60
 61  60  64  73  60  62  71  69  66  66  68  71  66  60  67  60
 62  61  69  62  65  66  60  67  99  98  92  92  93  96 100  94
 98  98  95  70  76  93 100  96  99  93  81  82  81  84  87  83
 84  83  94  94  94  95  96 101  99  96  89  80  74  80  81  74
 83  97 100 101  92  98  98  97  92  90  95  97  92  73  71  70
 82  91  96  97  95  90  88  89  88  85  90  88  91  96  96  88
 98  99 101  91  92  95  96  96  92  80  92  93  70  74  88  89
 95  93  97 102 101 101  96  83  73  86  98  87  96  97  96  90
 91  90  90  95  84  91  95  93  93  84  87  84  83  86  84  84
 80  76  76  73  78  82  83  80  69  74  72  68  66  61  83  83
 77  66  83  86  84  91  80  83  82  83  79  82  84  78  64  69
 87  76  76  82  81  83  87  81  81  81  85  96  72  74  93  94
 95  94  97  98  86  81  70  73  84  76  70  71  72  74  71  72
 87  98  97  96  86  76  73  72  78  72  71  71  73  83  84  86
 88  84  85  91  96  96  97  96  94  95  94  94  95  95  88  91
 97 103  92  90  89  82  84  83  72  76  72  61  63  72  67  61
 83  96  97  99  98  99  97  97  98  98  91  77  75  75  74  76
 79  82  85  86  86  86  86  84  82  85  85  82  83  84  87  95
 89  98  98  98  97  99  96  93  88  76  63  61  71  85  79  74
 76  79  73  76  60  60  60  60  60  76  76  76  66  67  61  78
 61  71  67  60  65  60  60  73  68  61  63  69  79  74  60  60
 60  60  74  62  67  77  95  94  90  85  89  91  93  96  98 101
 95  94  94  95  92  71  77  82  94  94  95  96 101  99  99  97
100  99  98  90  86  74  76  82  81  82  83  84  87  88  82  90
 92  82  85  88  86  83  84  82  86  84  94  95  90  87  86  95
 91  96  92  95  98  96  95  95  94  91  96  97 103  99  96  88
 97  97  95  95  97  96  86  91  92  92  94  94  96  94  96  92
 92  87  81  88  90  86  82  83  83  93  96  98  96  97  98  98
100 101 100  99  99 101 102  98  95  83  68  62  65  67  74  70
EOF
```

(21)

```
ENTER LOG DATE (DD/MM/YR) : 17/08/79
ENTER SITE CODE (5 CHARS) : ISHAF
ENTER USER CODE (4 CHARS) : 4754
 ENTER JOB CODE (3 CHARS) : 211
```

DATA LOGGED :17 AUG 1979
LOGGER : DB-301/26
SERIAL NUMBER : 1217
BASELINE : 60 DB
DYNAMIC RANGE : 64 DB
SAMPLING RATE : 4/SEC
TEST DURATION = 8: 0: 0

DATA ANALYZED : 25 SEPT 1979
SITE CODE : ISHAF
JOB CODE : 211
USER CODE : 4754
THRESHOLD : 80 DB
TOTAL SAMPLES = 115200
STANDBY TIME = 0: 1:46

TIME HISTORY ANALYSIS

NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
ARE BASED ON THE FOLLOWING:
100% DOSE = 90 DB / 8 HRS
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CUTOFF) LEVEL = 80 DB
NUMBER OF COMPUTATIONS = 480
PERIOD = 1 MINUTES

HOUR	LOGA Current	LOGA CUMULATIVE	DOSE CURRENT	DOSE CUMULATIVE
1	86.9	86.9	8.091	8.09
2	93.6	91.2	21.278	29.37
3	90.6	91.0	13.566	42.93
4	86.9	90.2	8.149	51.08
5	91.4	90.4	15.196	66.28
6	85.4	89.8	6.561	72.84
7	92.4	90.2	17.402	90.25
8	94.9	91.0	24.615	114.86

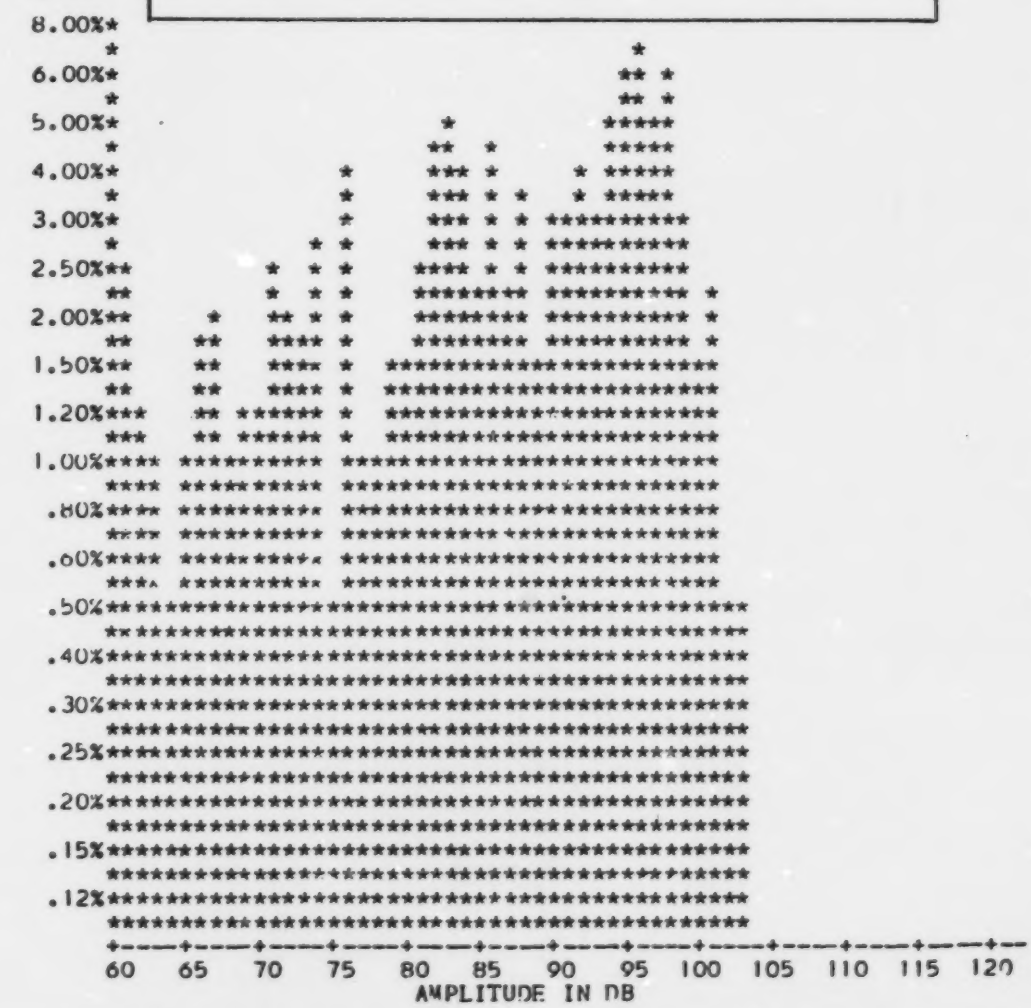
MIN. COMP. = 60 DB
ARITHMETIC MEAN = 84 DB
STD. DEVIATION = 12 DB
VARIANCE =144 DB
MAX. COMP. = 103 DB

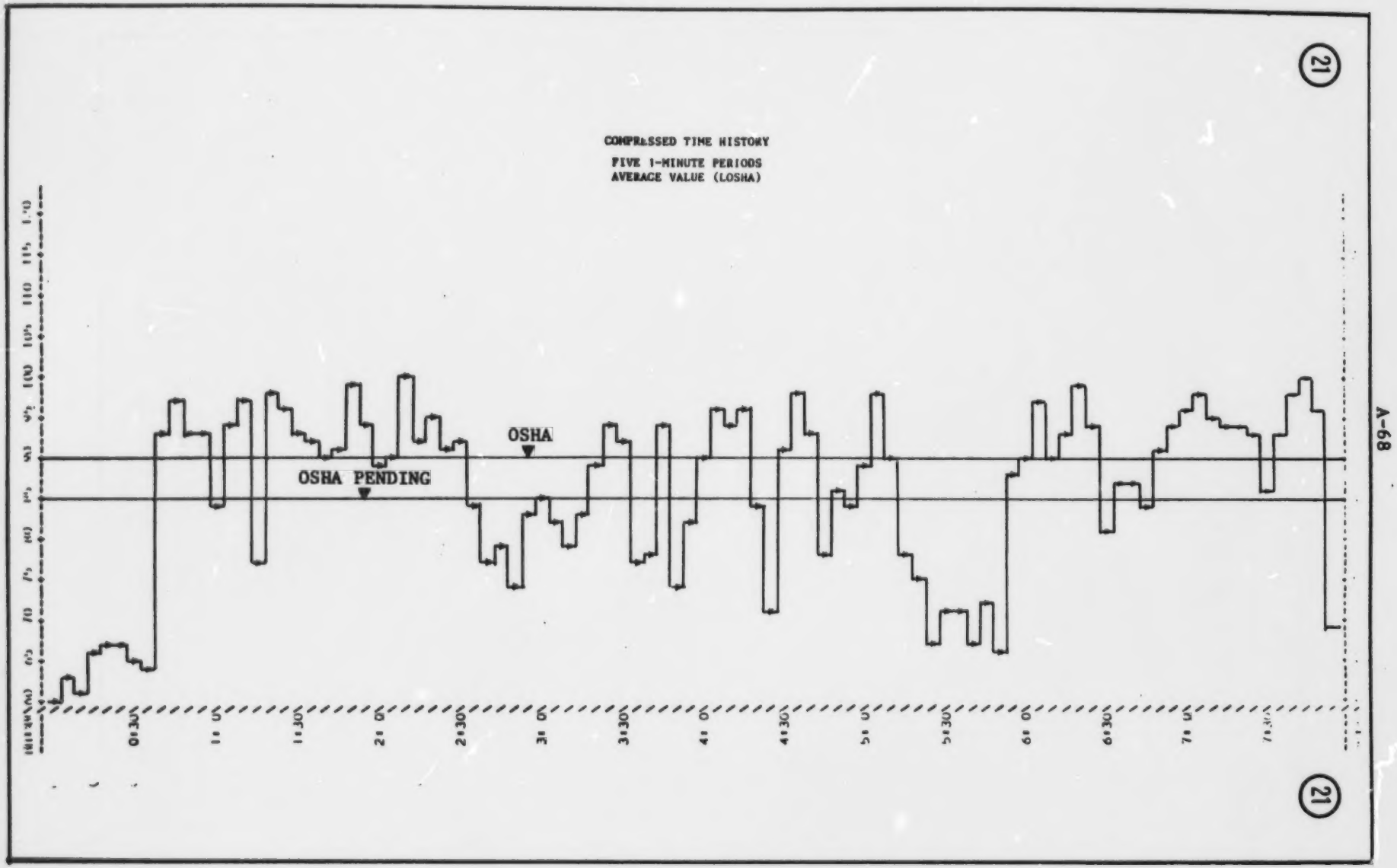
AMPLITUDE DISTRIBUTION

(21) (21)

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
51	10.6	60 TO 64
28	5.8	65 TO 69
41	8.5	70 TO 74
32	6.7	75 TO 79
69	14.4	80 TO 84
55	11.5	85 TO 89
73	15.2	90 TO 94
112	23.3	95 TO 99
19	4.0	100 TO 104
0	0.0	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480




21
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING
0:30
1:0
1:30
2:0
2:30
3:0
3:30
4:0
4:30
5:0
5:30
6:0
6:30
7:0
21

(22)

```
PLACE TAPE IN READER THEN TYPE A "SPACE" AND A "RETURN"
  1  26  80  1214   60   64    4    1
     39     115200  480
 68  67  69  69  67  74  72  69  67  79  76  78  72  79  79  77
 73  80  76  69  72  66  73  76  78  70  66  72  71  63  61  66
 97 102 102 101  97 101 101 100 101  99 101 101 100  99 104 103
102 100  99  97  81  67  60  60  62  60  60  60  60  60  60  60
 60  60  61  60  60  60  60  60  60  60  60  60  61  60  60  60
 86  88  81  89  89  90  90  78  81  93  94  94  93   9  76  85
 95  92  95  96  92  92  94  91  95  93  95  97  97  98  91  91
 91  89  83  76  91  97  95  98  95  99  98  99   8  96  96  96
 73  71  62  92 101 103  99  97  89  95  96  97  98  96  98  95
 92  96  97  96  90  92  91  93  93  95   9  98  96  96  97  94
 94 103  99  99  92  95  96  94  99 100  96  93  96  92 103 100
 96  98  93  92  96  87  93  97 100  98  98  95  86  74  79  77
 82  83  75  74  84  90  97  98  97  99  97  91  85  85  76  84
 85  85  85  85  85  85  85  85  85  85  85  85  85  85  85  90
 85  97  95  85  95  96  93  90  90  89  80  80  90  96  93  92
100 100  98  98  98  94  93  98  93  96  96  89  97  98  97  98
 96  93  93  93  96  87  86  87  89  87  87  87  86  81  79  74
 78  78  81  82  83  83  82  80  90  80  77  77  81  83  83  86
 83  76  77  76  76  79  79  79  79  79  79  79  80  80  80  81
 77  77  75  60  60  60  60  60  60  60  64  71  89  98  96  99
 94  90  83  71  60  60  60  63  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  62  66  64  61  61  61  60  60  60  62  61  60  60
 71  60  61  80  90  94  94  73  62  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  64  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  79  94  98  98  84  62  61  60  75  69  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
$EOF
```

(22)

```
ENTER LOG DATE (DD/MM/YR) : 18/07/79
ENTER SITE CODE (5 CHARS) : CC201
ENTER USER CODE (4 CHARS) : 7519

 ENTER JOB CODE (3 CHARS) : 230
```

```
   DATA LOGGED :18 JULY 1979
         LABEL : CC-201/230
 SERIAL NUMBER : 7519
      POSITION : CC DB
 DYNAMIC RANGE : 60 DB
 SAMPLING RATE : 4/SEC
 TEST DURATION =  [illegible]

 DATA ANALYZED : 14 SEPT 1979
     SITE CODE : CC201
      JOB CODE : 230
     USER CODE : 7519
   THRESHOLD : [illegible]
TOTAL SAMPLES = 115200
 STARTAY TIME = [illegible]
```

TIME HISTORY ANALYSIS

[illegible] INDEX (C.E.I.) CALCULATIONS
[illegible] BASED ON THE POLLUTION
[illegible] = 20 DB / [illegible]
[illegible] (CEI) [illegible] = [illegible]
THRESHOLD (CUTOFF) LEVEL = 60 DB
NUMBER OF COMPUTATIONS = 480
PERIOD = 1 MINUTES

TIME HOUR	10 DB CUTOFF CUMULATIVE		[illegible] CUTOFF CUMULATIVE
1	92.8	92.8	18.421
2	[illegible]	91.0	10.313
3	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	14.242
5	89.7	93.4	11.955
6	89.8	91.9	9.519
7	73.1	90.3	1.200
8	88.7	89.5	1.976

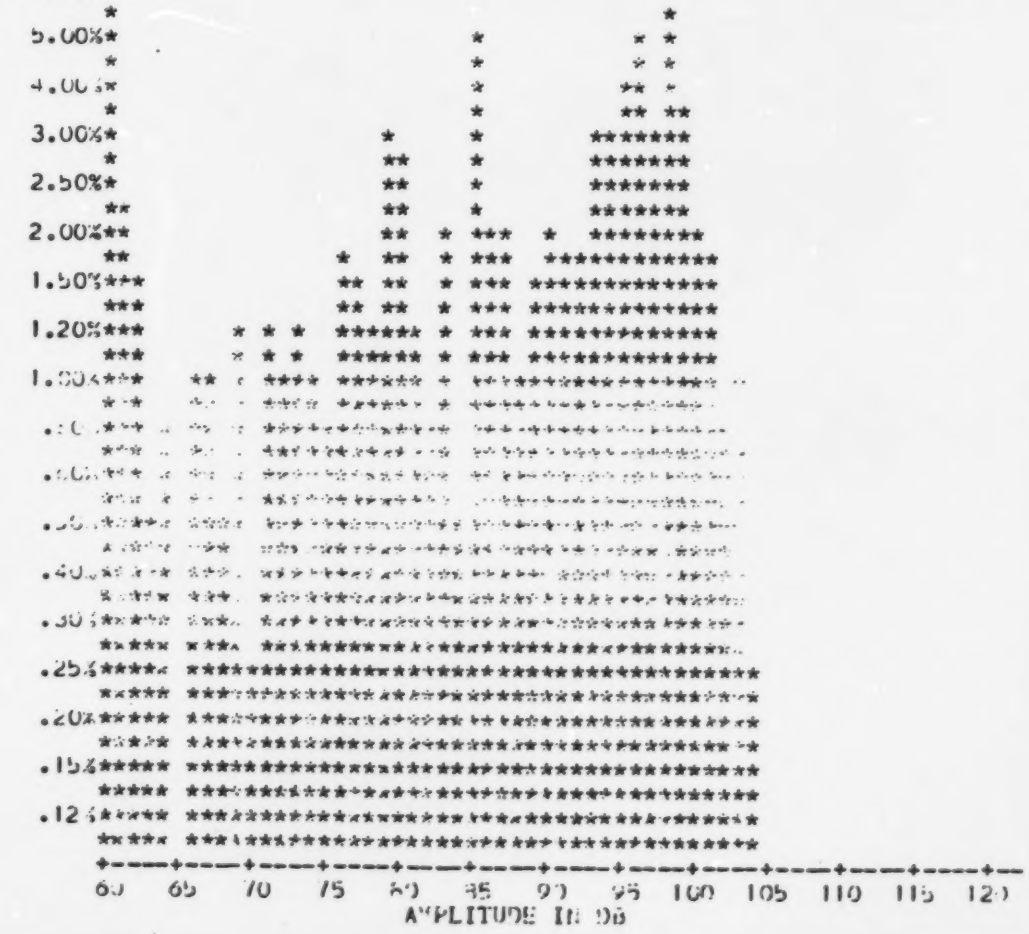
[illegible] COMP. = 60 DB
ARITHMETIC MEAN = 77 DB
[illegible] DEVIATION = 15 DB
VARIANCE = [illegible]

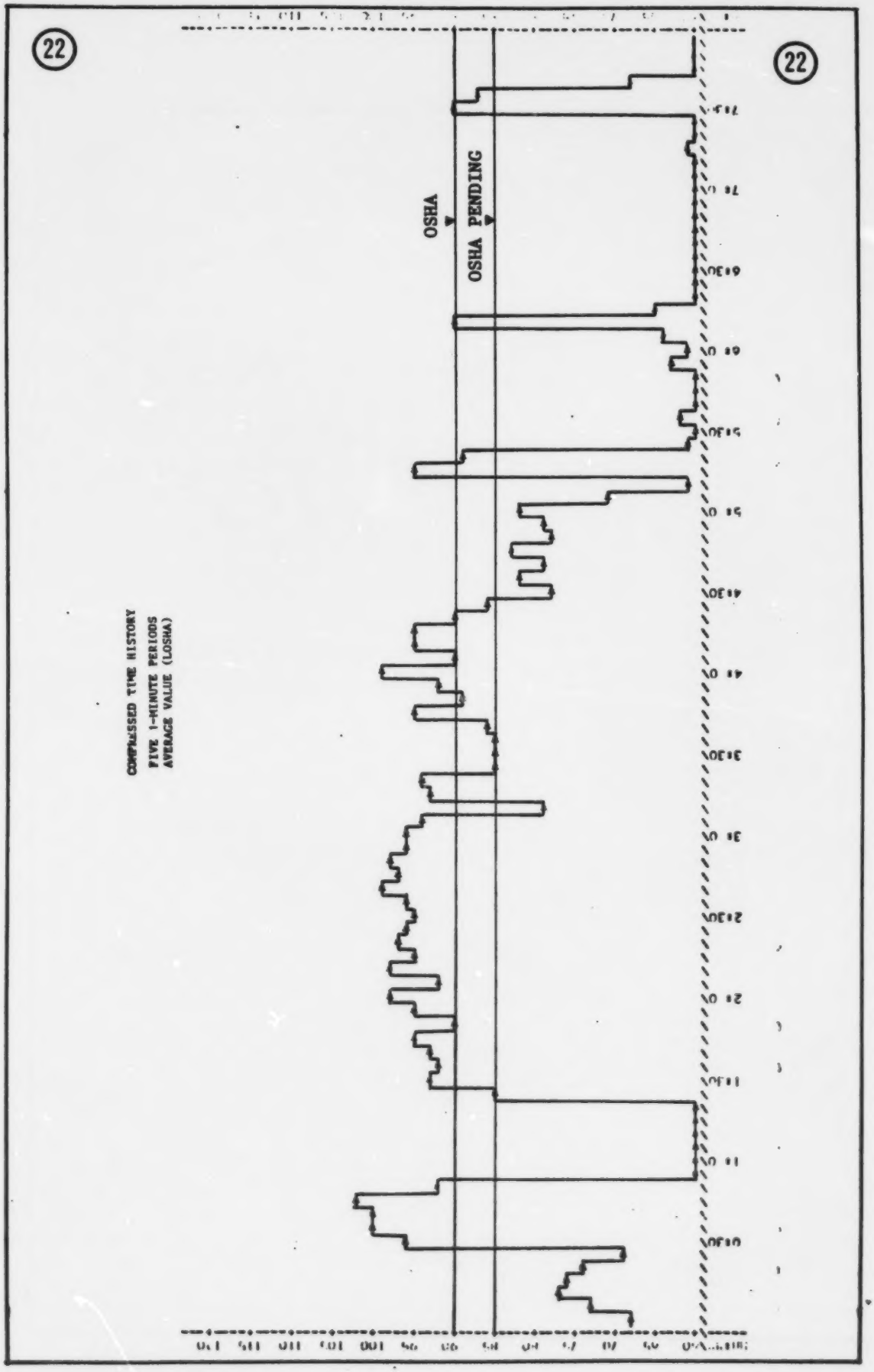
[illegible] = 1.000
MAX. COMP. = 109 DB

AMPLITUDE DISTRIBUTION

(22) (22)

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
185	38.5	60 TO 64
15	3.1	65 TO 69
19	4.0	70 TO 74
34	7.1	75 TO 79
29	6.0	80 TO 84
45	9.4	85 TO 89
46	9.6	90 TO 94
84	17.5	95 TO 99
23	4.8	100 TO 104
0	0.0	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119
TOTAL NO. OF DATA POINTS = 480		




22
22
OSHA
OSHA PENDING
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)

(23)

```
PLACE TAPE IN READER THEN TYPE A 'SPACE' AND A 'RETURN'
  1  26  80  1218   60   64    4    1
   7008    115200  480
  60  60  60  60  60  60  60  60  60  61  60  60  60  60  61  60
  60  65  67  69  60  65  67  67  71  71  60  60  66  67  68  65
  68  61  69  62  76  87  92  93  91  87  89  95  91  87  81  85
  86  78  66  71  84  92  87  87  83  86  86  86  87  87  87  87
  87  87  88  88  88  87  87  87  87 100 107 106 104  96  71  71
  74  75  85  93 105 106 105 105 104 102 105 107 107  96 104 104
 102  94  87  69  78  81  98 103 104 105 103 103 104 105 104  97
  97 104 106 105 106 103  99 106 106 106 105 103 104 101  95  78
  83  85  82  84  74  68  77  69  79  80  75  66  76  68  64  60
  60  60  61  65  78  90  82  82  80  81  82  79  81  81  77  75
  82  72  76  84  88  87  84  83  83  83  82  83  85  81  82  82
  82  81  85  86  81  84  84  75  78  71  62  80  83  77  80  79
  65  61  76  63  67  67  64  68  84  74  71  62  69  78  64  65
  66  60  60  60  73  61  60  60  60  62  60  60  74  60  65  66
  61  62  84  82  83  84  82  81  82  81  84  84  91  82  83  87
  73  64  75  71  65  66  60  62  63  72  70  73  60  73  68  60
  60  60  60  61  64  63  71  60  60  63  60  60  60  60  61  63
  63  65  65  64  76  60  66  71  60  60  61  65  60  75  68  62
  64  62  62  75  77  70  73  91  78  88  88  93  92 102 103 100
 104 105 105 103 104 103 102  92  97  80  91  95  94  96  90  95
 102  94  88  88  88  87  87  87  84  87  97  97  90  90  85  72
  72  71  90  94  91  91  99  89  80  81  81  80  75  77  83  93
  97  89  89  88  88  89  98  97  88  94  92  94  94  94  96  96
  93  95  93  90  97 101 104 105 105 105 106 106 106 105 103  96
 104 107 107 106 107 103 107 108 105 102  99  97  97  95 106 107
 106 107 104 102 104 107 104 105 103  94 101 105 105 105 109 102
 102 103 107 107 106 105  99  97 105 107 104 108 105 104 104 101
 107 106 101 103  97  99  90  97 107 107 107 107 104 101 103 108
 106 106 104  93  98  93  98  96 107 107 108 107  99 100 101 102
 108 108 106 105 105  98  74  69  60  70  65  60  60  71  67  69
%EOF
```

(23)

```
ENTER LOG DATE (DD/MM/YR) : 21/08/79 .
ENTER SITE CODE (5 CHARS) : 00307
ENTER USER CODE (4 CHARS) : 7929

 ENTER JOB CODE (3 CHARS) : 281
```

```
   DATA LOGGED :21  AUG 1979          DATA ANALYZED : 25 SEPT 1979
        LOGGER : DS-301/26                 SITE CODE : 00307
SERIAL NUMBER : 1218                        JOB CODE : 281
      BASELINE : 60 DB                      USER CODE : 7929
DYNAMIC RANGE : 64 DB                       DESCRIPT. : 40 I .
SAMPLING RATE :  4/SEC                TOTAL SAMPLES =  115200
TEST DURATION =   28 . 8 0            STARTED TIME =  0812 0812
```

TIME HISTORY ANALYSIS

OCTAVE BAND 1 HR (L.E.Q.) CALCULATIONS
DATA TAKEN AT USER DEFINED RATE
LOGGING = A/D / 2 CHNS
SAMPLING PERIOD = 0.25
REFERENCE (BASELINE) LEVEL = 60 DB
NUMBER OF COMPUTATIONS = 480
PERIOD = 1 MINUTES

TIME HOUR	LEQ dBA Current	LEQ dBA CUMULATIVE	SEL Current	SEL CUMULATIVE
1	81.4	81.4	3.782	3.78
2	100.6	96.1	54.053	57.84
3	90.0	94.5	12.513	70.37
4	77.1	92.7	2.263	72.64
5	74.3	91.2	1.404	74.05
6	95.2	92.1	25.871	99.92
7	103.2	93.1	78.058	177.97
8	102.1	93.8	73.009	250.98

MIN. COMP. = 60 DB MAX. COMP. = 109 DB
ARITHMETIC MEAN = 84 DB
STD. DEVIATION = 15 DB
VARIANCE = 225 DB

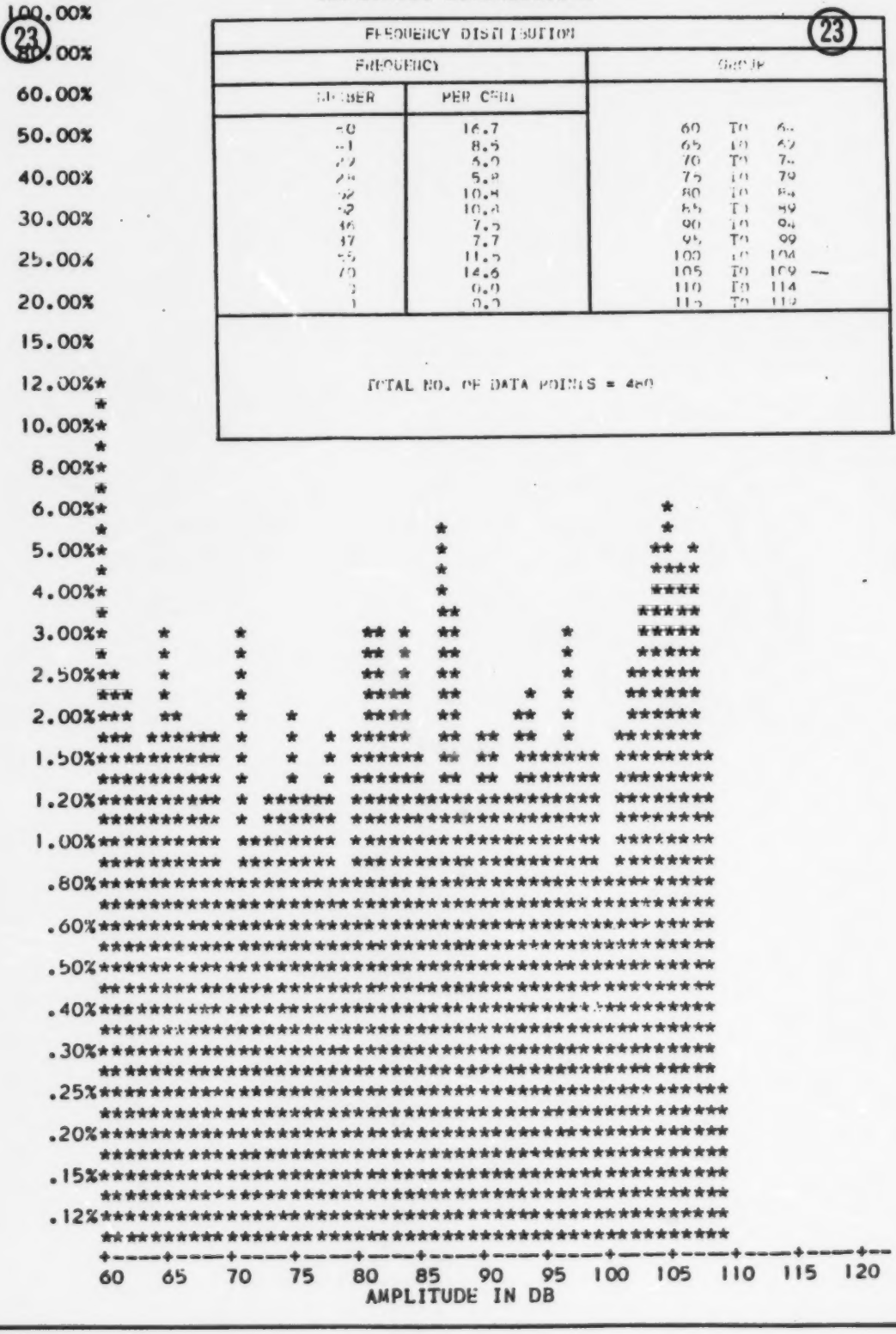
AMPLITUDE DISTRIBUTION

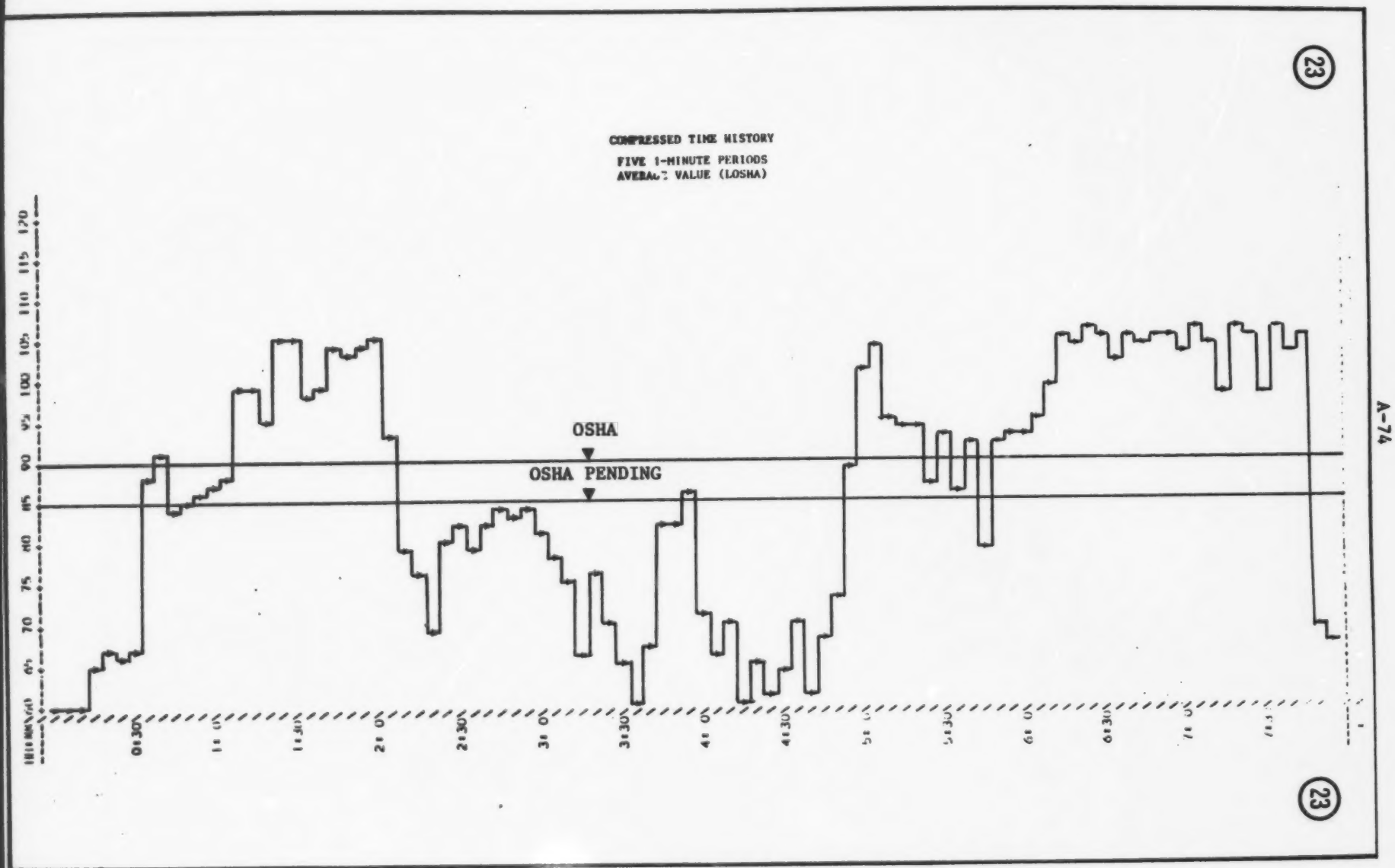
(23)

FREQUENCY DISTRIBUTION (23)

FREQUENCY		GROUP
NUMBER	PER CENT	
80	16.7	60 TO 64
41	8.5	65 TO 69
27	5.6	70 TO 74
26	5.4	75 TO 79
52	10.8	80 TO 84
49	10.2	85 TO 89
36	7.5	90 TO 94
37	7.7	95 TO 99
55	11.5	100 TO 104
70	14.6	105 TO 109
3	0.6	110 TO 114
1	0.2	115 TO 119

TOTAL NO. OF DATA POINTS = 480




23
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING
23

(24)

PLACE CASE ID PUNCH CARD TYPE A FOLLOWED BY A DATA DECK

1 26 80 1225 61 64 4 1

-105 115240 200

70 75 76 67 70 72 65 63 69 62 60 60 60 62 66 61
63 60 63 60 61 62 92 90 91 90 94 92 91 89 90 90
90 93 93 96 98 100 99 98 95 101 101 102 100 99 96 94
88 92 97 92 91 100 97 96 95 102 100 96 93 93 101 99
85 93 102 91 89 99 99 85 62 72 86 87 98 89 80 85
[illegible]
[illegible]
105 104 105 96 77 91 103 102 79 93 106 102 99 102 101 96
93 97 92 98 92 93 97 93 93 94 104 105 99 102 101 96
96 106 99 101 99 95 101 100 93 101 101 100 98 93 103 102
92 101 [illegible] 104 [illegible] [illegible] [illegible] [illegible] [illegible] 102 101 103 [illegible]
98 106 102 101 102 99 101 106 101 96 101 101 97 102 104 99
[illegible]
[illegible]
103 104 99 88 97 95 92 91 95 101 72 99 103 103 96 96
71 60 60 79 65 68 63 64 64 65 60 60 62 62 63 64
72 [illegible] 61 67 60 71 72 79 [illegible] [illegible] [illegible] [illegible] 106 103 105
102 100 98 104 103 100 102 100 97 102 102 102 96 101 102 99
101 104 [illegible] 101 101 96 102 103 101 101 101 95 96 97 103 101
101 100 97 97 103 102 103 101 99 94 96 94 99 95 103 104
[illegible]
101 96 95 95 99 104 100 101 97 95 97 103 101 99 100 97
95 100 103 100 100 99 94 98 103 100 101 99 97 94 101 103
100 102 99 94 99 104 106 100 97 96 94 95 97 103 101 99
100 97 93 100 103 100 100 98 93 96 95 98 93 100 99 98
99 94 101 103 100 103 101 96 94 102 102 101 101 98 94 97
94 87 87 87 87 87 88 87 88 87 91 103 103 103 103 104
104 103 98 92 103 99 93 97 71 74 60 61 60 65 60 67
60 64 63 61 65 66 65 60 60 60 60 56 67 63 62 60
60 60 60 64 76 69 64 70 65 86 93 96 93 96 96 96
4E0F

ENTER LOG DATE (DD/MM/YR) : 11/07/79
ENTER SITE CODE (5 CHARS) : CC201

ENTER LOCK CODE (4 CHARS) : 4445
ENTER JOB CODE (3 CHARS) : 271

DATA LOGGED : 11 JULY 1979
LOGGER # : [illegible]
SERIAL [illegible] : 1225
[illegible]
[illegible]
[illegible]
[illegible]

DATA ANALYZED : 12 SEPT 1979
SITE CODE : CC201
JOB CODE : 271
[illegible]
[illegible]
[illegible]
[illegible]

[illegible]

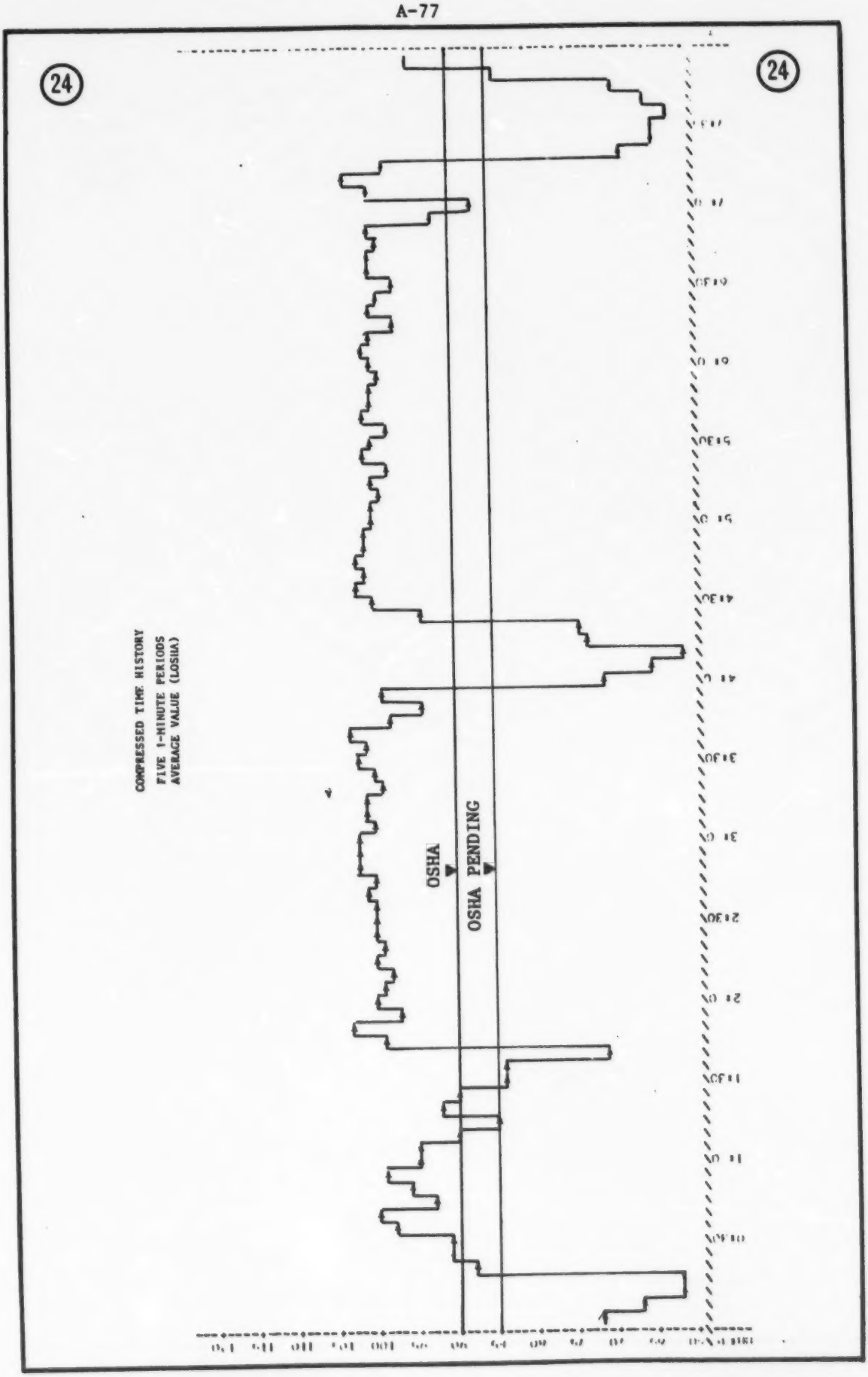
[illegible] DATA (Cu. Ft.) CALCULATIONS
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
PLOTTED = 1 11:00:05

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	1.[illegible]	1.[illegible]
2	43.9	43.9	21.604	43.[illegible]
4	1[illegible]	[illegible]	[illegible]	91.[illegible]
8	1[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]
[illegible] = 91.[illegible]
[illegible] = 14.[illegible]
[illegible]

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
48	10.0	60 TO 64
22	4.6	65 TO 69
14	2.9	70 TO 74
10	2.1	75 TO 79
6	1.3	80 TO 84
33	6.9	85 TO 89
51	10.6	90 TO 94
119	24.8	95 TO 99
171	35.6	100 TO 104
6	1.3	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480


24
24
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING

(25)

```
PLACE DATA IN SPACE 1 DATA AREA / PROGRAM / AND / STOP
  1   26   27   [illegible]   64    4    1
      42      115,200  4.00
  66  64  62  60  62  60  66  61  60  60  61  60  64  60  59  62
  69  60  62  71  72  60  61  73  75  74  60  60  75  80  61  76
  76  93  75  65  75  74  62  60  61  60  61  61  63  67  62  79
  81  91  96 104 103  98  92  76  91  66  61  66  67  68  60  60
  60  61  63  60  60  60  66  60  60  59  74  69  70  76  71  93
  92  90  73  90  93  83  75  84  64  69  62  62  65  64  60  66
  62  66  66  62  72  74  66  87 102  86  72  69  66  64  65  90
  91  96  95  64  80  86  92  86  83  67  63  91  86  86  95  96
  89  95 104  96  83 100 102  89  90  92  67  66  91  90 107 102
  92  87  82  76  73  86  64  79  83  90  64  79  70  83  84  86
  81  81  70  76  86  84  83  81  84  89  88  76  68  80  69  88
  87  84  82  83  87  95  95  91  81  69  61  60  66  60  60  60
  60  60  60  60  60  60  60  60  60  60  60  60  60  60  61  60
  60  60  60  60  75  78  64  70  86  84  83  81  85  74  71  76
  71  65  76  74  77  60  60  60  60  60  60  60  60  60  61  60
  61  60  60  60  60  60  63  63  65  61  60  60  61  60  62  61
  60  60  60  60  60  60  60  60  60  60  60  60  60  62  60  60
  60  60  60  60  60  60  60  60  61  75  70  74  61  79  62  60
  60  60  64  64  63  61  61  61  60  60  60  60  65  63  60  62
  60  60  60  60  62  60  60  60  60  60  61  60  63  60  60  60
  60  77  60  60  60  75  66  79  70  60  60  60  60  64  73  76
  81  67  72  97  90  90  81  62  60  64  72  60  67  67  64  92
  90  76  62  85  85  84  84  73  71  77  73  81  77  78  79  80
  76  80  77  83  71  69  60  75  78  60  64  75  63  60  60  60
  60  66  69  66  64  64  74  77  83  80  78  83  86  87  84  87
  88  91  88  82  82  89  82  82  83  84  81  84  84  85  84  81
  81  80  81  82  82  82  93 103 104 100  92  97 102 105 106 102
  98  93 105 104  99  86  82  81  93  91  75  70  60  60  63  60
  60  60  60  60  60  62  60  60  60  60  61  75  63  67  67  71
  64  65  66  69  60  60  60  60  60  61  79  69  72  73  67  65
%EOF
```

(25)

ENTER LOG DATE (DD/M/YR) : 13/07/79

ENTER SITE CODE (5 CHARS) : CC210

ENTER USER CODE (4 CHARS) : 7203
ENTER JOB CODE (3 CHARS) : 211

DATA LOGGED :13 JULY 1979
LOGGER : 99-301/25
SERIAL NUMBER : 1213
BASELINE : 0 DB
DYNAMIC RANGE : 64 DB
SAMPLING RATE : 4/SEC
TEST DURATION : 8 HR 0 M

DATA ANALYZED : 12 SEPT 1979
SITE CODE : CC210
JOB CODE : 211
USER CODE : 7203
THRESHOLD : 80 DB
TOTAL SAMPLES = 115200
STANDBY TIME = 0 HR 0 M

TIME HISTORY ANALYSIS

NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
ARE BASED ON THE FOLLOWING
TOTAL DOSE = 90 DB / 8 HRS
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CUTOFF) LEVEL = 80 DB
NUMBER OF COMPUTATIONS = 480
PERIOD = 1 MINUTES

TIME	LOSHA		DOSE	
HOUR	CURRENT	CUMULATIVE	CURRENT	CUMULATIVE
1	83.5	83.5	5.054	5.05
2	84.4	84.0	5.773	10.83
3	90.2	86.7	12.824	23.69
4	77.5	85.2	2.197	25.89
5	64.5	83.7	.366	26.22
6	79.2	83.2	2.807	29.02
7	80.5	82.8	3.410	32.43
8	92.0	84.8	16.527	48.96

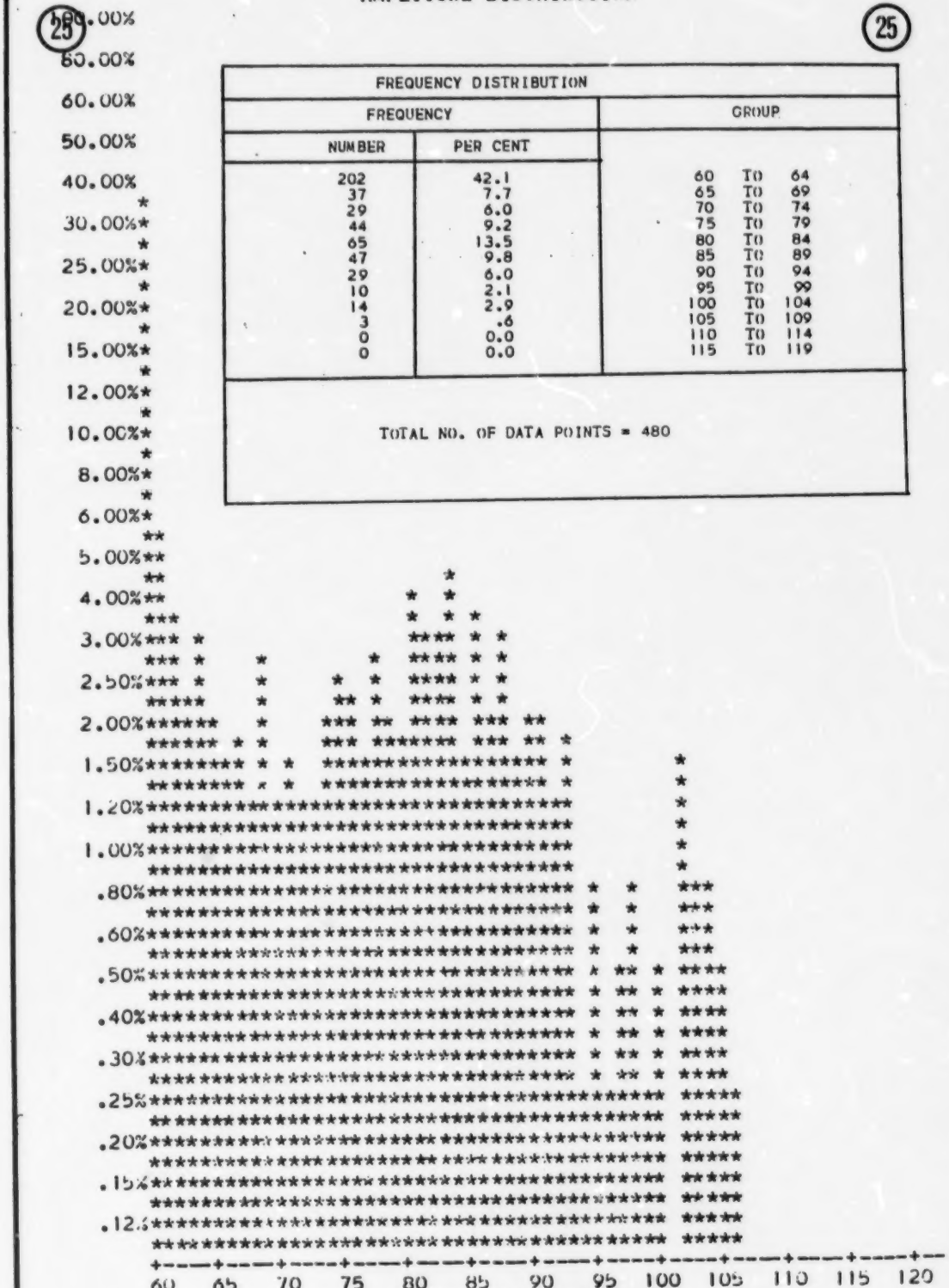
MIN. COMP. = 60 DB
ARITHMETIC MEAN = 72 DB
STD. DEVIATION = 13 DB
VARIANCE =169 DB
MAX. COMP. = 106 DB

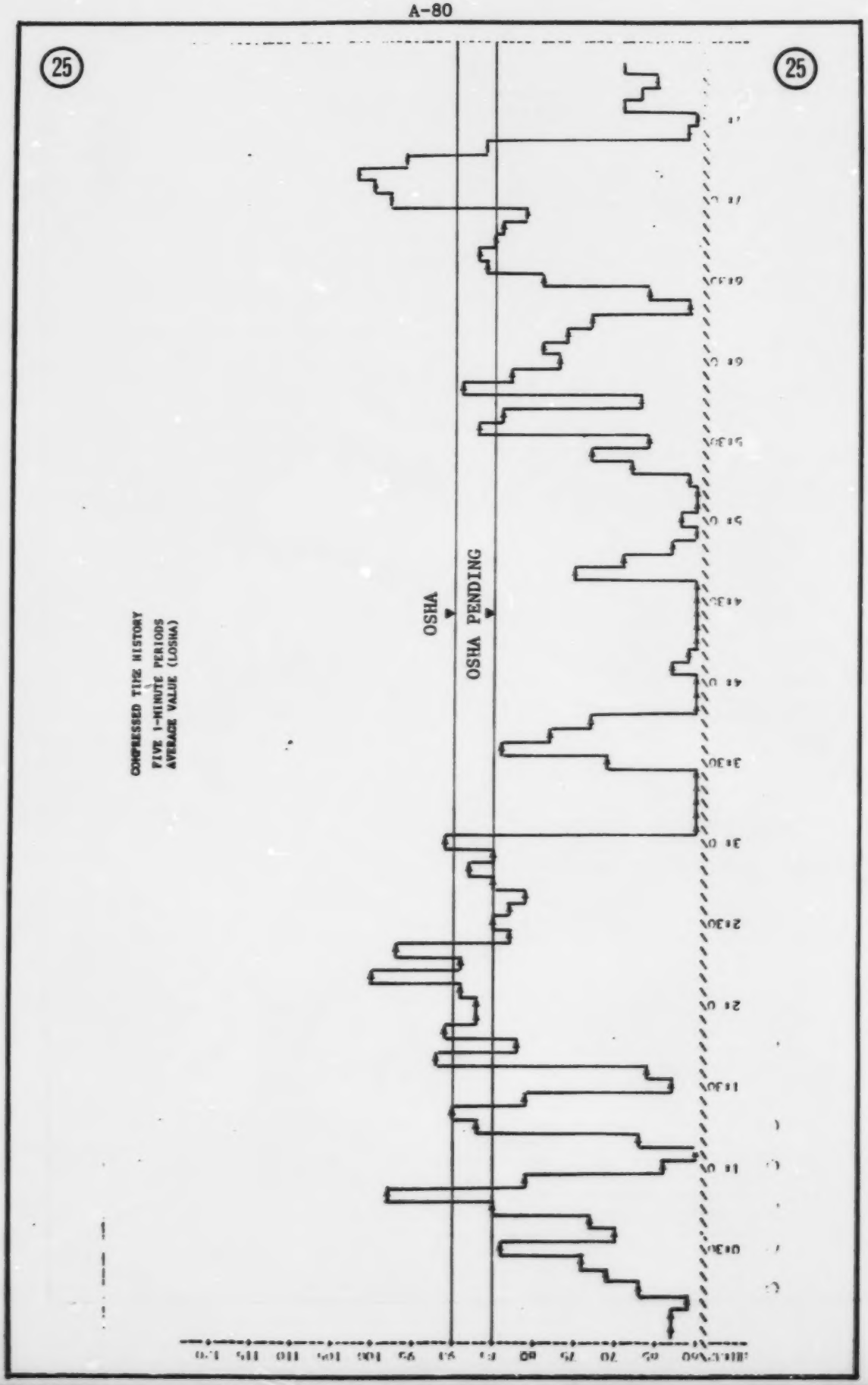
AMPLITUDE DISTRIBUTION

(25) (25)

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
202	42.1	60 TO 64
37	7.7	65 TO 69
29	6.0	70 TO 74
44	9.2	75 TO 79
65	13.5	80 TO 84
47	9.8	85 TO 89
29	6.0	90 TO 94
10	2.1	95 TO 99
14	2.9	100 TO 104
3	.6	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480




25
25
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING

(26)

(26)

67	60	61	60	60	62	66	65	67	71	69	67	66	77	67	69	
64	66	79	67	72	75	75	81	73	87	89	91	91	86	93	91	
89	89	90	92	95	99	99	100	101	94	100	97	91	99	92	89	
94	92	92	96	95	101	97	99	98	99	96	89	7	87	87	90	
91	95	90	89	84	85	87	94	91	85	88	87	101	93	92	101	
1			1	91												
		1	1	1	1											
93	93	94	94	92	98	99	95	96	92	93	95	97	95	94		
												91				
		91											1	91		
89	87	89	86	85	84	91	88	91	95	87	90	89	90	91		
				101	104	102	96	104	104	105	104	97	99	97		
101	94	97	96	97	103	100	97	95	83	96	87	89	100	92	96	
				95	101	101	102	105	101	7	102	102	96	99		
				97	99	101	103	101	102	94	101	102	103	102	101	
84	87	85	91	100	99	91	91	93	103	104	103	101	102	103	102	
104	102	103	95	94	97	97	95	101	91	93	90	96	103	104	104	
103	99	97	99	102	102	103	104	103	103	103	99	92	99	99	99	
										91	99	96	96	97	101	
103	103	104	104	103	94	98	91	99	104	104	105	102	103	104	101	
90	96	91	90	97	102	105	106	93	88	98	87	86	86	92	102	
105	105	99	96	89	90	96	100	105	105	104	102	105	104	100	99	
90	88	89	95	99	105	104	104	103	102	103	103	99	92	83	89	
95	100	103	104	104	101	97	95	103	104	103	100	91	88	95	100	
103	100	104	101	101	102	102	103	96	93	93	101	104	104	103	97	
94	88	87	101	96	78	83	92	79	75	84	75	82	60	63	61	
60	66	67	76	80	77	85	74	77	76	66	92	100	103	103	104	
108	105	106	104	107	95	71	72	80	77	83	75	64	69	60	60	

4500

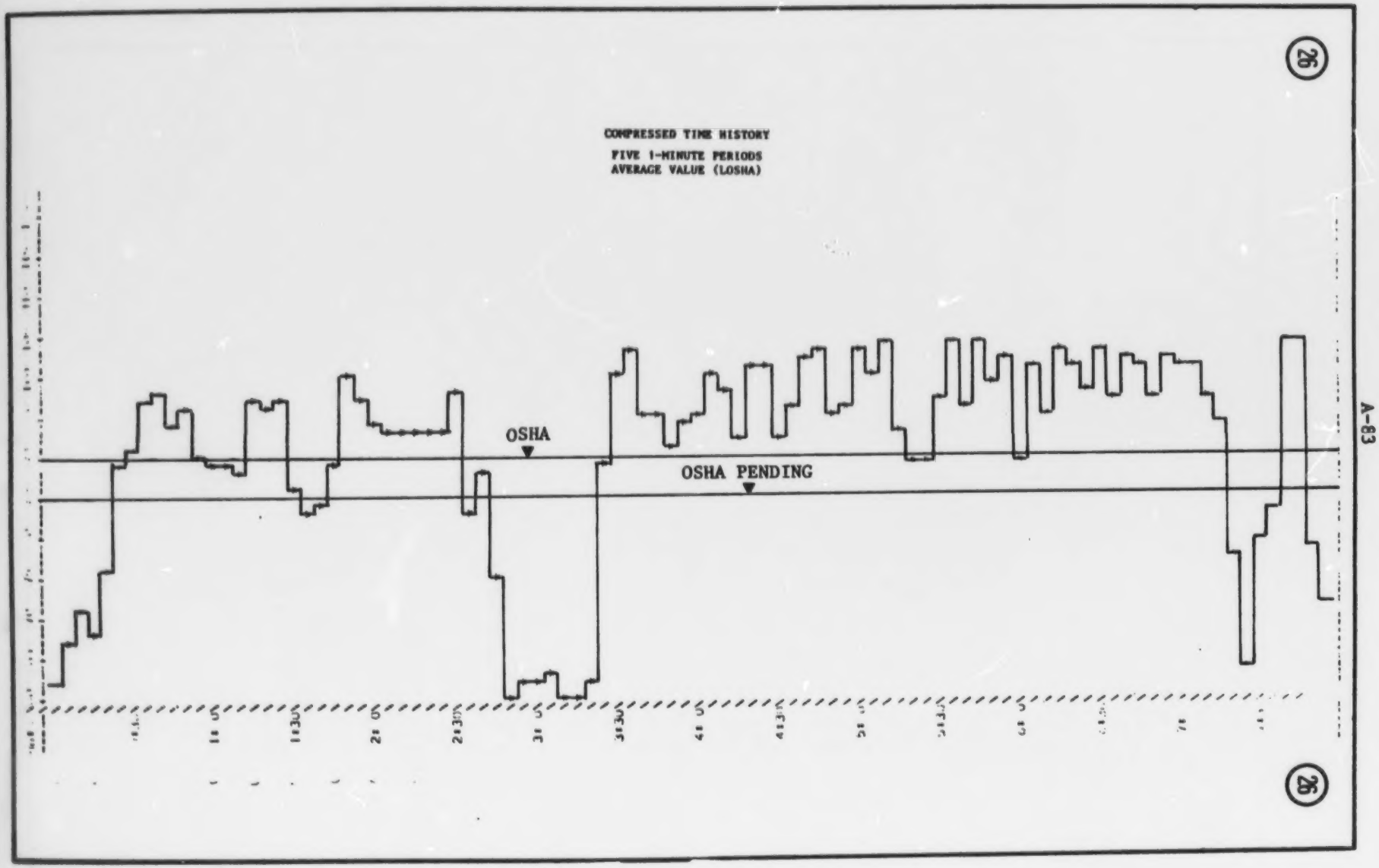
Entire Log DATE (MM/DD/YY) = 10/07/79
Entire Start Time (5 CLASS) = 2095
Entire Stop Time (5 CLASS) = 734
Entire Job Time (5 CLASS) = 283

DATA LOGGED 10 JULY 1979

DATA ANALYZED : 11 SEPT 1979

(26) AMPLITUDE DISTRIBUTION (26)

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
51	10.6	60 To 64
22	4.6	65 To 69
9	1.9	70 To 74
17	3.5	75 To 79
21	4.4	80 To 84
81	16.9	85 To 89
90	18.8	90 To 94
58	12.1	95 To 99
111	23.1	100 To 104
20	4.2	105 To 109
0	0.0	110 To 114
0	0.0	115 To 119
TOTAL NO. OF DATA POINTS = 480		


26
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING
26

(27)

```
PLEASE ENTER THE STARTING DATE FOR A PERIOD OF RECORD
  1  26  30  1221  60  64   4   1
  2240H      11020  460
 61  60  63  71  60  72  60  76  72  61  69  76  60  73  75  75
 74  75  71  74  73  61  69  73  70  71  68  71  65  69  72  94
 91  90  90  90  94  92  91  93  91  91  93  92  93 100  95 101
 99  93  97 100 102 101  96  99  96  97  98 103 105  95  89  88
 90  89  91  90  92 105 105 105 101 102  94  96  91  75  94  96
 96  91  89  98 100  99 100 100  93  97  99 104 103 103 104 102
103 102 101  97  98 101 102 102 101 101  98  99  99 101 100  98
 98  96 101 102 101 102 103 102 102 103 103 104 104 102 104 102
 98  95  97  98  97  92  91  94  91  90 100 104 106 105 103 106
104 103 103 102 104 105 104  97  91 103 103  99  98 101 101 101
103 100 103 104 104 105 103 101  98  98 103 105 105 105 105 104
102 105 102 106 101 102  98 101 100 105 103 100 106 103 103 104
 99 104 103 103 101 100  97  97 101 105 105 105 104 105 105 103
103  97 103 103 103 102  96  97  91  99 102  97  91  97  91  91
 60  62  60  60  60  60  60  60  60  60  60  64  60  60  66  60
 61  60  63  64  75  60  60  66  63  60  60  70  60  60  60  60
 69  60  63  72  74  74  95  91 104 105 106 106 106 105 105 106
103 106 106 104 100  97  92  99 105 105 106 106 106 106 104 105
103 105 103 104 105 102 104 100  99 103 103 101 106 106 105 104
105 106 106 106 105 102  95  97 105 106 106 106 106 106 103 104
101  99 107 105 105 103  94  95 103 106 105 105 106 107 102 105
105 105 106 104 100  93  94 102 104 106 105 106 106 106 104 105
106 105 106 102  93  96 105 106 105 106 106 106 104 105 104 105
106 103  96  99  89  88  98 105 105 106 106 106 106 103 105 104
106 104  96  89  92 101 105 106 106 106 106 105 103 106 106 102
101  94 105  94  90  93 104  94  96  99  96  94  97 106 106 106
106 107 106 105 102 106  95  97  95 102  93  67  94  94 105  94
 60  90  98  94  95  88  88  86  88  89  90  92  96  99 100  99
100  96  96  94  83  74  65  65  64  62  65  66  77  73  79  79
%EOF
```

(27)

ENTER LOG DATE (MM/DD/YR) : 11/07/79

ENTER SITE CODE (5 CHARS) : 24PAN

ENTER USER CODE (4 CHARS) : 2461
ENTER JOB CODE (3 CHARS) : 211

DATA LOGGED :11 JULY 1979
LOCKED : 79-304/226
STATION NUMBER : 1320
LATITUDE : [illegible]
TIME ZONE : [illegible]
SAMPLING RATE : 4/SEC
DATA POINTS = [illegible]

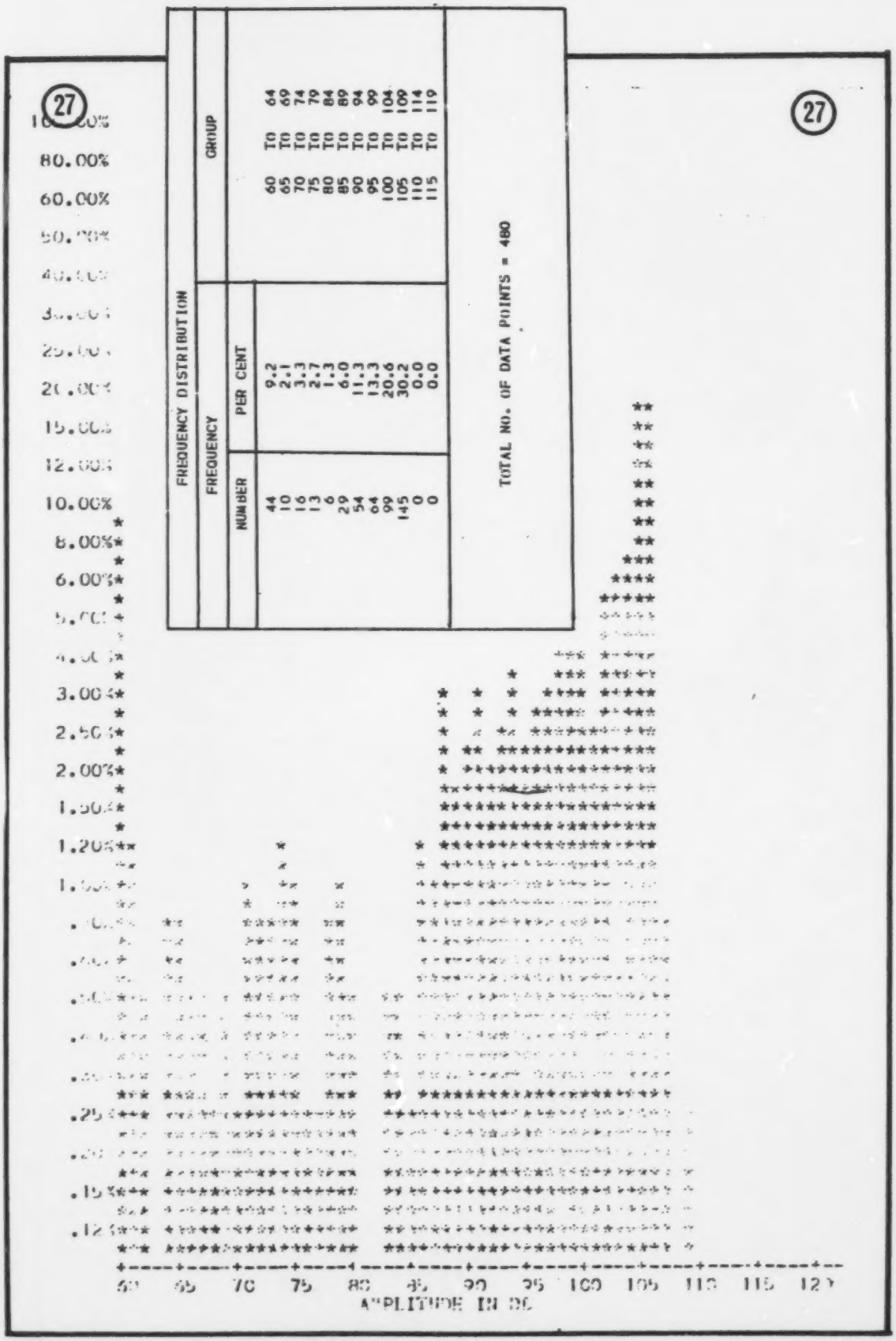
DATA ANALYZED : 12 SEP 1979
SITE CODE : 24PAN
JOB CODE : 211
USER CODE : 2461
[illegible]
TOTAL SAMPLES = 11[illegible]
START / ST = 11[illegible]

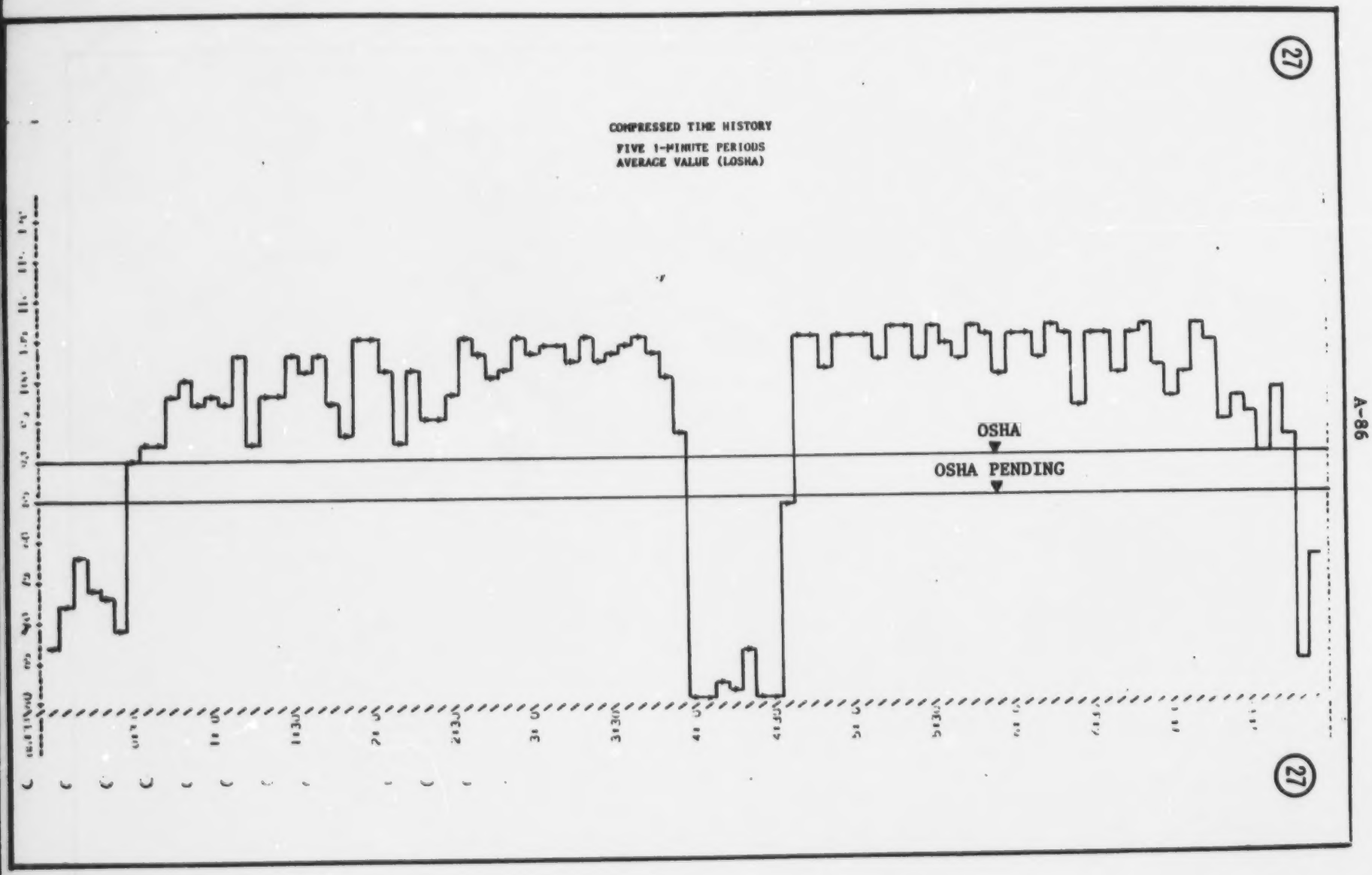
AIR HISTORY ANALYSIS

AIR [illegible] I [illegible] CALCULATIONS
[illegible]
[illegible] = [illegible]
[illegible]
[illegible]
NUMBER OF COMPUTATIONS = 441
PERIOD = 1 MINUTES

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	91.2	91.2	14.612	14.61
2	93.3	95.3	49.583	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	80.461	[illegible]
6	104.2	103.4	98.666	81.26
7	104.7	104.0	[illegible]	40.78
8	[illegible]	104.[illegible]	[illegible]	[illegible]

[illegible] = [illegible]
ARITHMETIC MEAN = 94.0[illegible]
STD. DEVIATION = 14.[illegible]
[illegible]


(27)
(27)
FREQUENCY DISTRIBUTION
GROUP
FREQUENCY
NUMBER
PER CENT
TOTAL NO. OF DATA POINTS = 480
60 TO 64 44 9.2
65 TO 69 10 2.1
70 TO 74 16 3.3
75 TO 79 13 2.7
80 TO 84 6 1.3
85 TO 89 29 6.0
90 TO 94 54 11.3
95 TO 99 64 13.3
100 TO 104 99 20.6
105 TO 109 145 30.2
110 TO 114 0 0.0
115 TO 119 0 0.0
80.00%
60.00%
10.00%
8.00%
6.00%
3.00%
2.50%
2.00%
1.50%
1.20%
.25
.15
AMPLITUDE IN DB


27
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING
27

(28)

PLACE TAPE IN READER THEN TYPE A "SPACE" AND A "RETURN"
1 26 80 1217 60 64 4 1
1e921 115200 480
73 70 66 66 73 64 60 64 63 63 60 61 60 60 60 64
69 64 62 60 89 92 90 91 90 94 91 91 91 90 91 91
93 93 99 97 102 100 97 96 101 102 103 100 98 95 85 80
94 97 88 92 97 98 96 97 90 92 85 83 95 82 71 69
95 89 97 96 91 100 85 86 85 91 98 102 101 98 97 97
97 97 97 97 97 97 97 97 97 97 97 97 97 97 97 97
103 95 96 96 96 97 95 95 95 96 99 101 102 103 101 100
104 100 99 95 95 95 101 101 104 101 104 104 102 99 97 96
95 97 100 102 104 102 102 104 102 99 95 95 96 100 102 104
104 102 100 102 101 97 94 95 97 97 102 105 105 102 104 104
101 97 95 95 97 101 102 104 101 102 104 102 96 97 95 94
94 98 101 103 104 101 103 103 101 98 96 95 95 99 101 103
103 101 104 102 101 97 97 97 97 97 95 96 102 103 103 101
104 101 97 94 94 94 95 100 102 103 103 102 90 87 93 86
86 89 85 85 87 85 85 85 85 85 93 88 85 88 98 89
89 90 93 89 90 92 96 96 97 99 99 95 99 99 99 99
89 89 89 89 89 89 89 89 91 95 89 100 103 91 86 85
85 94 94 93 95 98 94 94 93 96 94 93 94 99 104 104
104 104 105 104 103 104 104 104 104 104 106 106 105 105 103 102
102 102 92 95 97 98 101 102 103 104 102 104 101 97 96 97
98 94 96 100 103 104 105 101 104 104 100 96 93 94 97 96
99 103 103 104 103 101 103 80 85 104 102 101 97 93 94 96
101 103 103 105 102 104 105 102 100 93 93 94 96 99 103 104
104 105 102 105 103 101 98 93 93 99 102 104 104 104 103 105
102 101 96 93 95 101 103 103 103 103 104 103 101 99 93 93
97 101 104 104 103 102 104 104 102 100 94 94 98 102 103 104
103 102 105 103 101 95 93 94 98 96 102 104 105 105 102 103
104 104 104 103 82 84 85 76 66 65 60 61 61 77 77 71
73 82 80 72 73 66 67 64 66 72 74 80 78 75 82 93
96 91 94 94 96 94 95 94 97 83 68 60 65 64 65 61
#EOF

ENTER LOG DATE (DD/M/YR) = 11/07/79
ENTER SITE CODE (5 CHARS) = 30289
ENTER USER CODE (4 CHARS) = /354
ENTER JOB CODE (3 CHARS) = 283

DATA LOGGED = 11 JULY 1979
LOGGER = DB-301/26
SERIAL NUMBER = 1217
BASELINE = 60 DB
DYNAMIC RANGE = 64 DB
SAMPLING RATE = 4/SEC
TEST DURATION = 0 0 0

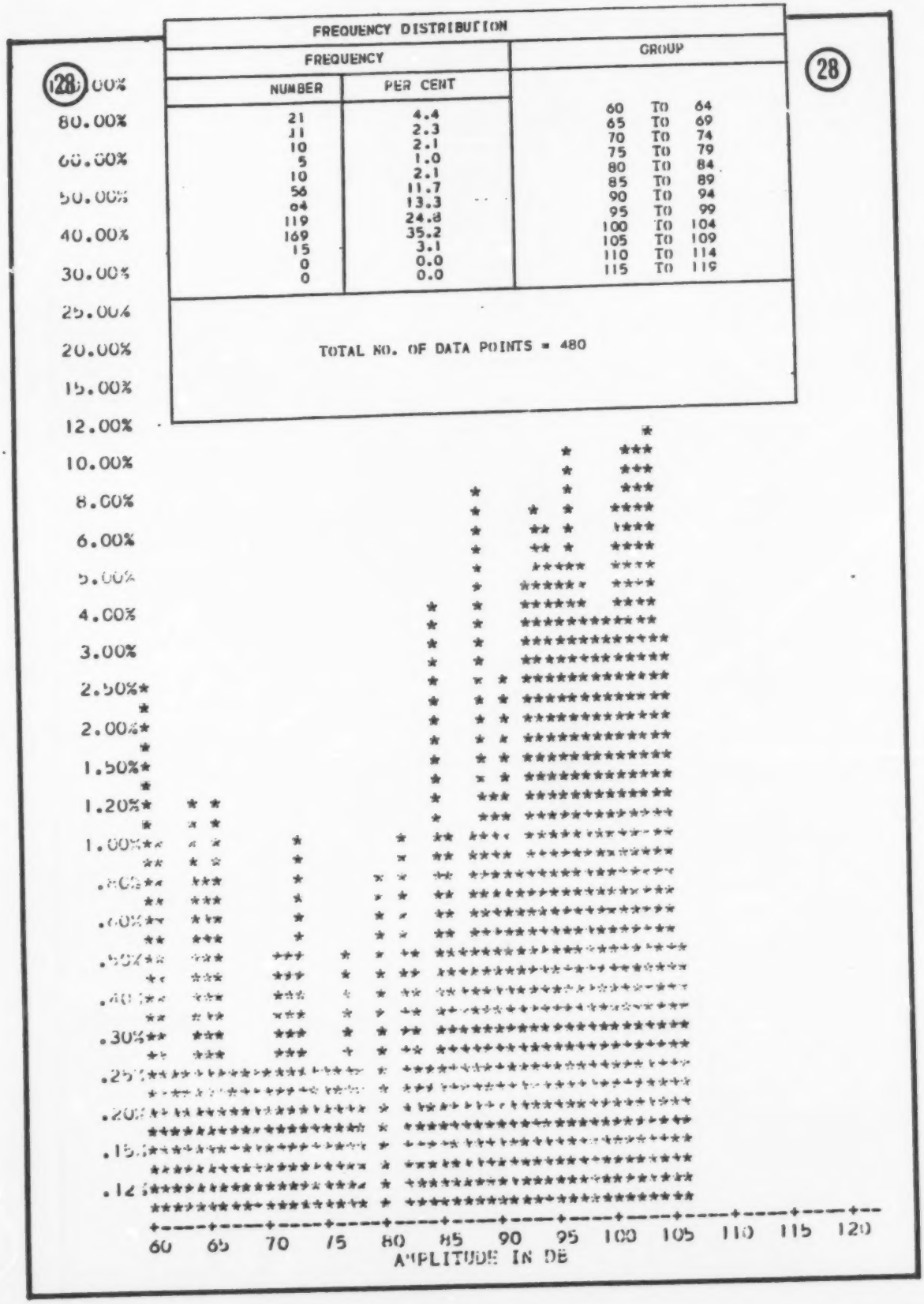
DATA ANALYZED = 12 SEPT 1979
SITE CODE = 30289
JOB CODE = 283
USER CODE = 7354
THRESHOLD = 60 DB
TOTAL SAMPLES = 115200
STANDBY TIME = 1818:50

TIME HISTORY ANALYSIS

NOISE EXPOSURE LEVEL (N.E.L.) CALCULATIONS
ARE BASED ON THE FOLLOWING
LOGGER LOG = 90 DB / 8 HRS
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CRITERION) LEVEL = 90 DB
NUMBER OF COMPUTATIONS = 480
PERIOD = 1 MINUTES

TIME INCR.	LOCAL SPECIFIC	LOCAL CUMULATIVE	DOSE SPECIFIC	DOSE CUMULATIVE
1	92.6	92.6	17.411	17.41
2	97.2	95.2	33.933	51.34
3	100.7	97.5	54.693	106.04
4	98.1	97.7	39.522	145.56
5	97.4	97.6	34.324	179.88
6	101.1	98.3	50.921	230.80
7	101.4	98.9	60.460	291.26
8	94.0	98.4	21.934	313.20

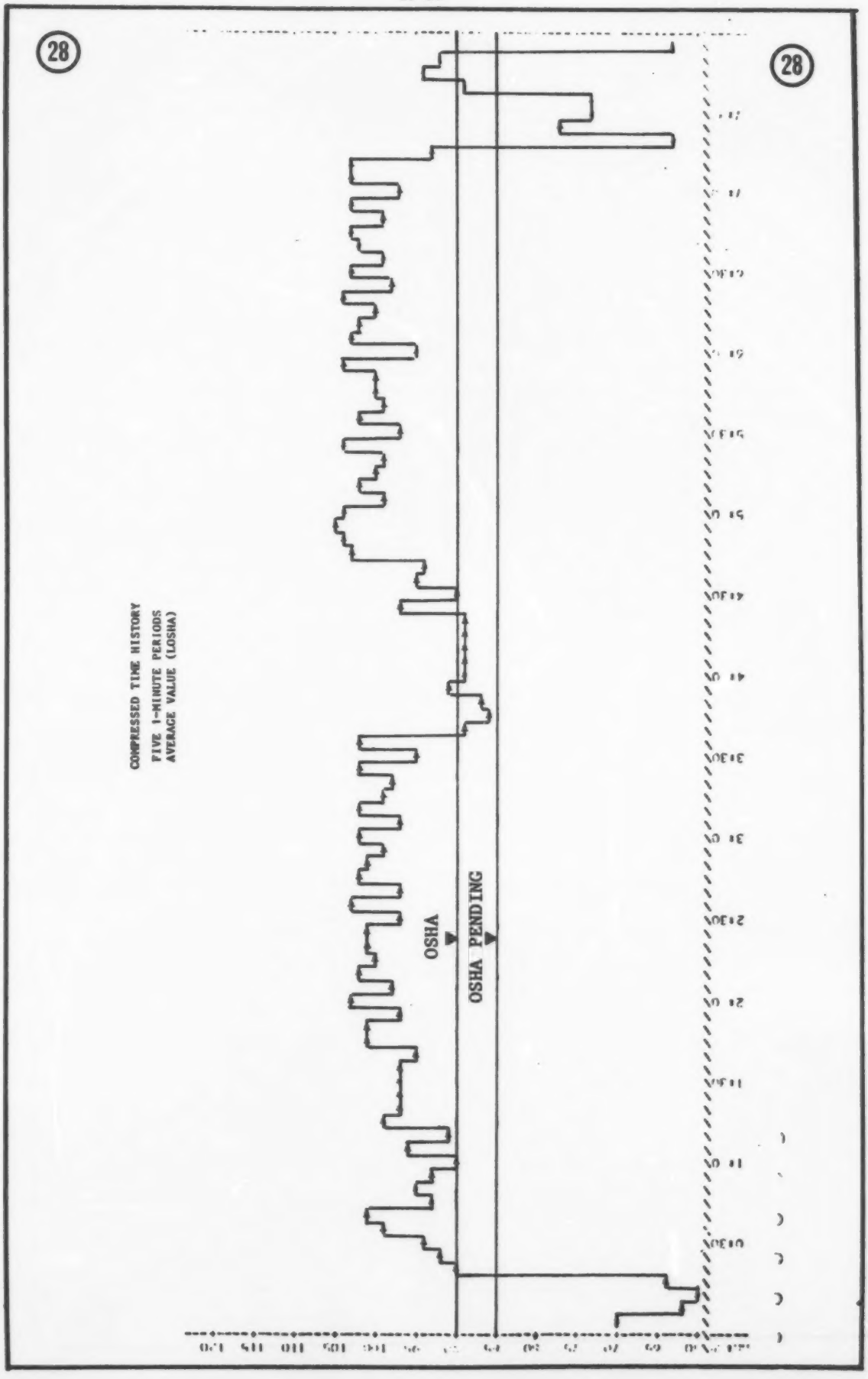
MIN. COMP. = 60 DB MAX. COMP. = 105 DB
ARITHMETIC MEAN = 94 DB
STD. DEVIATION = 11 DB
VARIANCE = 121 DB



FREQUENCY DISTRIBUTION

FREQUENCY		GROUP
NUMBER	PER CENT	
21	4.4	60 TO 64
11	2.3	65 TO 69
10	2.1	70 TO 74
5	1.0	75 TO 79
10	2.1	80 TO 84
56	11.7	85 TO 89
64	13.3	90 TO 94
119	24.8	95 TO 99
169	35.2	100 TO 104
15	3.1	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480


28
28
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING

29

```
PLACE TAPE IN READER THEN TYPE A "SPACE" AND A "RETURN"
  1  26  80  1214    60    64     4     1
     234     115200   440
  61  60  60  60  63  60  62  60  61  66  68  66  60  66  66  63
  66  60  60  60  61  60  61  68  65  65  70  71  63  65  65  71
  71  62  69  74  67  69  60  62  63  61  66  60  63  70  73  62
  63  63  60  60  63  60  65  71  81  77  84  74  63  74  63  61
  66  61  61  61  62  60  60  60  60  62  63  61  75  61  62  83
  72  70  72  63  68  67  61  67  61  66  66  87  72  81  78  79
  93  94  82  91  96  85  84  83  90 102 103 100  86  95  86  99
  62  72  60  60  62  72  82  68  70  68  68  82  82  70  61  63
  60  90  69  63  61  60  61  64  60  62  84  99  91  81  88  81
  81  72  60  72  60  60  75  73  84  60  60  60  60  60  60  60
  60  60  60  60  60  60  60  60  60  60  92  60  60  60  66  65
  93  94  89 102  96 103  97 100 100  94  99  95  96 102  97  95
  97 102  99  91  92  93 105 100 105  88 102 111 101 112 110 110
 113 105  67  60  82  60  70  69  68  69  65  87 110 112 113 112
 112 112 110 103 110 109 111 107 108 105 106 112 111 112 112 114
 114 110  60  74  70  83  85 110 112 112 114 105  99  83  73  76
  74  68  64  66  67  79  73  60  60  60  60  60  60  60  70  72
  61  61  60  68  60  60  60  60  73  64  60  60  60  60  62  66
  60  60  60  60  62  60  63  65  60  60  60  61  68  70  64  73
  60  60  60  66  66  61  60  61  60  60  60  60  60  60  60  60
  60  60  60  60  71  76  64  74  85  78  65  91  87  93  95  91
  92  91  92  95  97  87  95  96  95  99  97  97  97  96  85  72
  65  69  83  80  81  82  85  86  85  94  90  85  80  71  91  94
  99  96  93  90 103 104  98 100 100  96  99  93  92  82  93  82
  86  75  76  77  73  72  72  92  81  76  87  83  73  75  73  82
  83  80  79  81  83  66  65  64  67  74  71  84  82  83  80  75
  80  83  82  79  77  82  87  80  76  73  71  73  73  66  70  66
  77  72  72  79  88  82  81  72  77  74  78  76  78  82  81  74
  76  66  72  84  84  78  77  69  64  72  68  73  71  72  62  66
  62  63  65  64  65  60  61  62  66  71  66  66  60  63  65  60
%EOF
```

29

```
ENTER LOG DATE (DD/MM/YR) : 22/08/79
ENTER SITE CODE (5 CHARS) : 00307
ENTER USER CODE (4 CHARS) : 4139

 ENTER JOB CODE (3 CHARS) : 214
```

```
   DATA LOGGED :22  AUG 1979          DATA ANALYZED : 25 SEPT 1979
        LOGGER : DB-301/26                 SITE CODE : 00307
SERIAL NUMBER : 1214                        JOB CODE : 214
      BASELINE : 60 DB                      USER CODE : 4139
DYNAMIC RANGE : 64 DB                       THRESHOLD :  70
 SAMPLING RATE :  4/SEC                TOTAL SAMPLES =  115200
 TEST DURATION =   8: 0: 0             STARTAY TIME =   8: 0: 0
```

TIME HISTORY ANALYSIS

```
NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
ARE BASED ON THE FOLLOWING:
 TOSH LOSS = 90 DB / 8 HRS
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CUTOFF) LEVEL = 70 DB
  NUMBER OF COMPUTATIONS = 440
PERIOD =  1 MINUTES
```

TIME	LOGA		TWOA	
HOUR	CUMULAT	CUMULATIVE	CUMULAT	CUMULATIVE
1	68.0	68.0	.586	.59
2	86.3	81.8	7.469	8.05
3	82.7	82.1	4.534	12.59
4	105.8	95.6	111.407	124.00
5	96.3	95.5	30.116	154.11
6	87.1	95.6	8.376	162.49
7	89.9	94.0	12.490	174.98
8	75.5	94.1	1.682	176.52

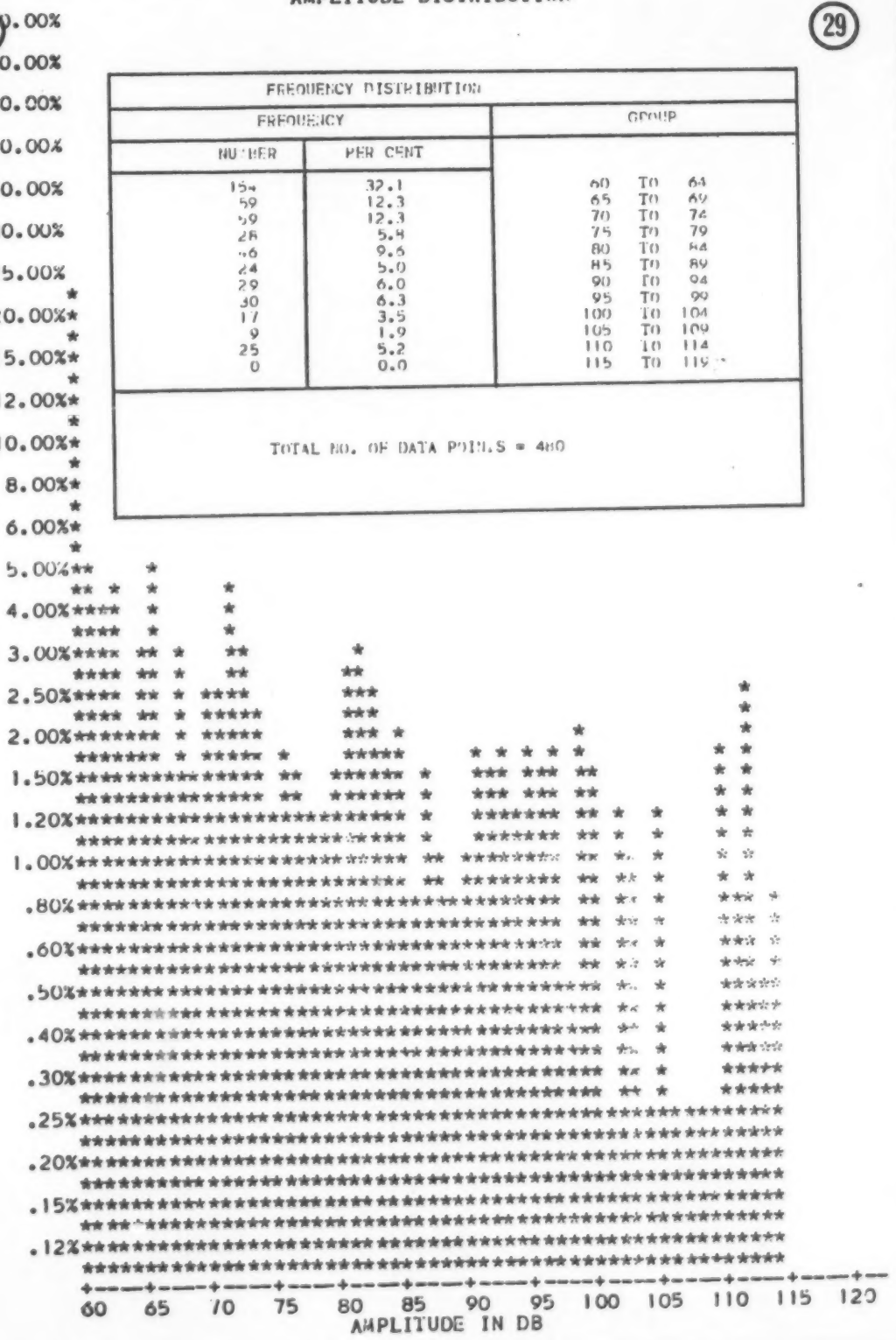
```
MIN. COMP. =  60 DB          MAX. COMP. = 114 DB
ARITHMETIC MEAN =  76 DB
STD. DEVIATION =  16 DB
VARIANCE =256 DB
```

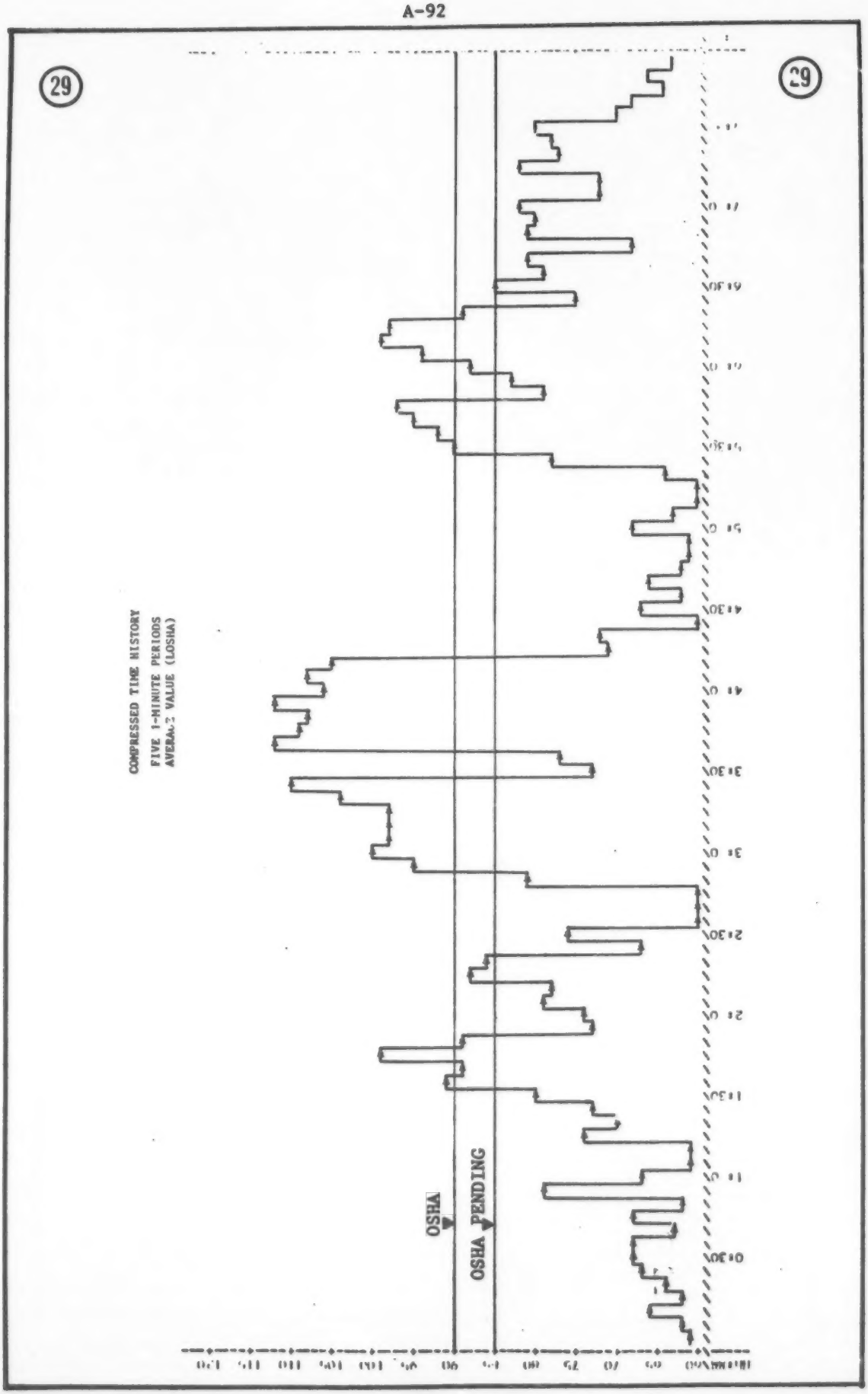
AMPLITUDE DISTRIBUTION

(29) (29)

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
154	32.1	60 TO 64
59	12.3	65 TO 69
59	12.3	70 TO 74
28	5.8	75 TO 79
46	9.6	80 TO 84
24	5.0	85 TO 89
29	6.0	90 TO 94
30	6.3	95 TO 99
17	3.5	100 TO 104
9	1.9	105 TO 109
25	5.2	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480




29
29
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING

(30)

```
PLACE TAPE IN READER THEN TYPE A 'SPACE' AND A 'RETURN'
  1  26  80  1220    60    64     4     1
     117     115200  480
 60  60  62  60  60  60  60  60  60  60  60  60  60  61  65  77
 62  71  75  80  69  83  89  89  89  89  90  89  89  89  89  90
 90  89  89  89  89  89  89  90  89  89  89  89  90  89  89  89
 89  91  89  89  90  90  89  90  88  97 100  98  99  99  99  98
100 100  98  77  67  60  60  60  60  60  60  61  66  60  60  60
 60  60  60  60  60  60  63  62  64  60  61  60  60  60  60  60
 60  60  65  60  60  66  60  60  60  60  63  71  60  60  60  60
 60  60  64  72  89  60  60  60  62  64  60  65  60  60 106 109
 63  60  60  60 103 112 112 111 103 104 111 105  60  61  60  64
 60  60  60  60  60  65  72  62  60  60  66  70  92 102 100  72
 60  60  60  60  60  60  60  92  91  90  88  66  60  60  60  60
 60  60  65  61  67  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  61  60  60  60  60
 60  60  60  60  60  72  72  76  60  60  60  67  65  62  62  80
 61  61  60  62  62  61  60  66  67  68  73  73  88  85  82  64
 62  70  70  66  69  73  63  63  70  65  60  63  63  66  63  63
 60  63  71  73  72  62  77  88  94  93  92  73  60  60  63  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 63  60  60  60  60  60  60  60  60  60  60  60  60  63  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  61  64  61  60  60  60  60  60  60 105  60
 61  60  62  60  64  70  77  71  64  73  79  86  82  90  84  83
 83  97  96  66 102 104 106 101  72  72  67  60  78  80  72  67
 70  72  74  68  72  64  64  60  68  70  60  60  60  63  63  68
 64  64  77  67  64  66  65  60  63  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  72  60
 63  61  60  60  61  60  60  60  60  60  65  60  60  60  61  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  62  60  60  60  60  60  66  72  60  60  60  60
%EOF


ENTER LOG DATE (DD/MM/YR) : 23/07/79
ENTER SITE CODE (5 CHARS) : CC230
ENTER USER CODE (4 CHARS) : 4122

 ENTER JOB CODE (3 CHARS) : 213


    DATA LOGGED :23 JULY 1979          DATA ANALYZED : 17 SEPT 1979
         LOGGER : Dn-301/26                 SITE CODE : CC230
  SERIAL NUMBER : 1220                       JOB CODE : 213
       BASELINE : 60 DB                    USER CODE : 4122
  DYNAMIC RANGE : 64 DB                     THRESHOLD : 80 DB
  SAMPLING RATE : 4/SEC                  TOTAL SAMPLES = 1152 X
  TEST DURATION =  8: 0: 0               STANDBY TIME =  0: 0:29


          TIME HISTORY ANALYSIS

NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
ARE BASED ON THE FOLLOWING:
TOSHA 1975 = 90 DB / 8 HRS
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CUTOFF) LEVEL = 80 DB
  NUMBER OF COMPUTATIONS = 480
PERIOD = 1 MINUTES

TIME          LOCAL                    NOISE
HOUR    CURRENT  CUMULATIVE      CURRENT  CUMULATIVE
   1      87.5      87.5          8.888      8.89
   2      84.1      85.8         5.545      14.43
   3      90.4      91.3         30.208     45.64
   4      69.8      89.3          .756      45.40
   5      74.5      87.9         1.466      46.86
   6      77.7      87.9         9.127      55.99
   7      67.4      86.8          .545      56.54
   8      60.6      85.9          .219      56.75
MIN. COMP. = 60 DB              MAX. COMP. = 112 DB
ARITHMETIC MEAN = 87 DB
STD. DEVIATION. = 13 DB
VARIANCE =167 DB
```

(30)

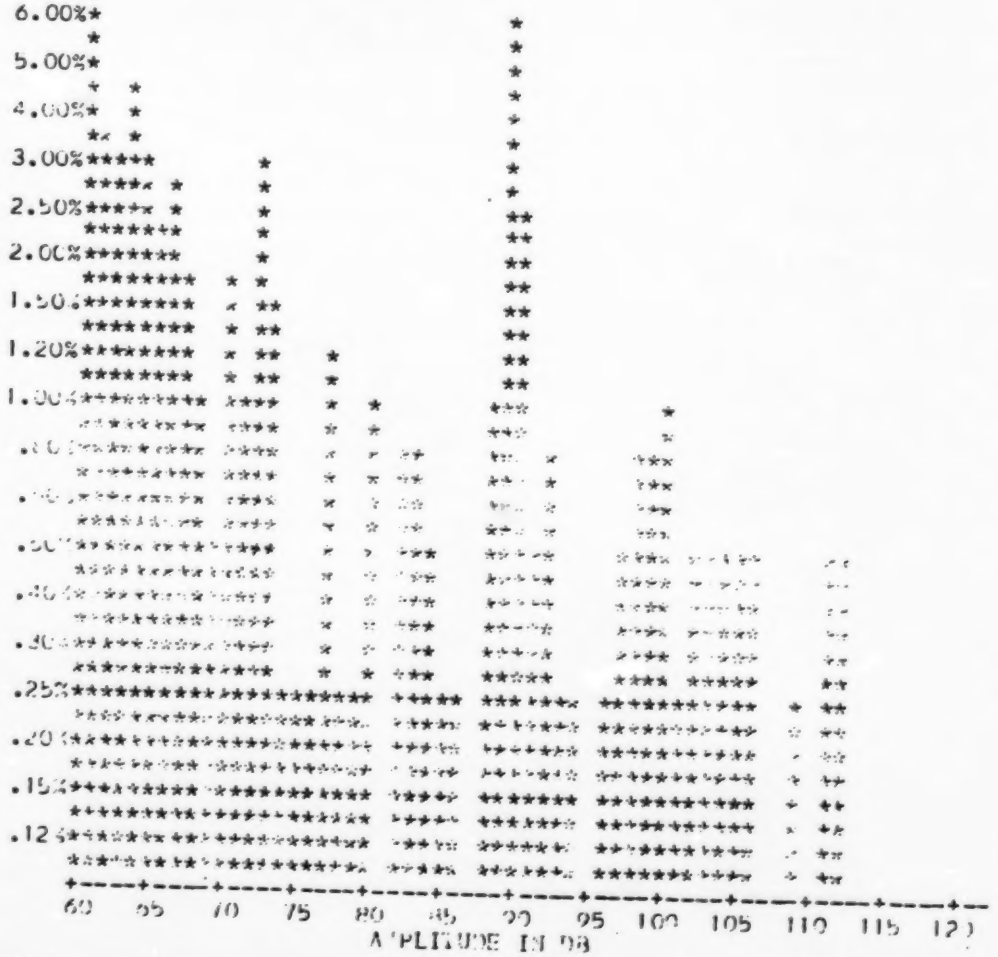
AMPLITUDE DISTRIBUTION

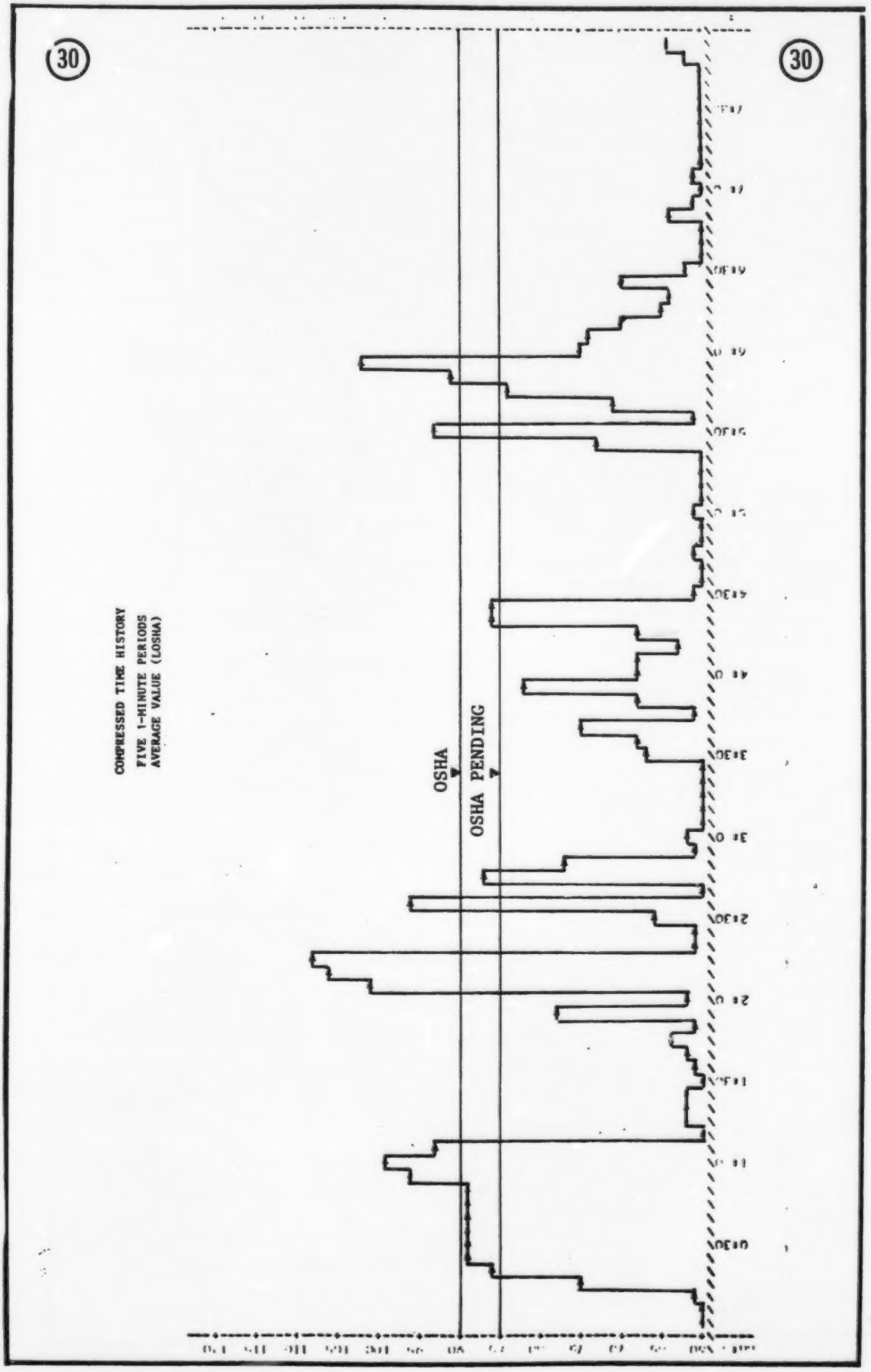
(30)

FREQUENCY DISTRIBUTION

FREQUENCY		GROUP
NUMBER	PER CENT	
317	66.0	60 TO 64
33	6.9	65 TO 69
31	6.5	70 TO 74
9	1.9	75 TO 79
12	2.5	80 TO 84
32	6.7	85 TO 89
17	3.5	90 TO 94
9	1.9	95 TO 99
11	2.3	100 TO 104
5	1.0	105 TO 109
4	.8	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480




30
30
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING

(31)

```
PLACE TAPE IN READER THEN TYPE A "SPACE" AND A "RETURN"
  1  26  80  1226    60    64     4     1
     113     115200  480
 60  60  68  60  60  64  72  61  61  62  76  76  65  64  66  63
 66  60  61  91  80  63  81  79  67  67  60  75  83  81  72  80
 92  93  83  67  69  76  70  89  89  93  94  90  89  96  94  96
 96  96  97 100  97  96  97  96  97  95  96  96  98  97  93  94
 93  95  94  92  92  93  95  89  90  93  95  94  94  93  94  94
 95  98  94  94  94  94  94  94  93  93  92  71  61  60  64  81
 93  93  94  93  94  91  96  87  93  94  96  96  93  94  93  94
 95  95  95  96  95  98  97  96  95  95  96  92  79  97  95  95
 95  98 101 101 102  93  94  98 100 100  97  91  70  74  61  60
 60  60  60  60  60  62  60  60  60  61  64  60  60  60  60  60
 60  60  60  60  62  60  80  85  85  84  84  84  84  85  84  86
 85  86  95 100  96  95  87  97  98  95 100 101  99  99  99  99
102 102 101  98  98  94  97  97  97  90  94  89  92  93  95  96
 96  94  94  78  73  71  79  84  73  60  79  80  95  98  99  98
 89  76  82  85  85  86  86  86  86  86  86  86  87  86  95  92
 97  97 101 101 103 104 104 101  62  60  62  72  93 106 106 108
100  96  60  60  60  60  60  60  60  72  60  60  60  60  60  60
 60  60  60  92 107 108 108 108 107 108 108 106 103  98  96  96
 96  97  95  98  96 101 105 106 109 108 109 104  95  95  96  95
 97 105 107 107 107 105 106 107  83  78  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  60  60  60  76  67  66  60  71  79  78  90  96  97
101  98  92  92  89  89  89  89  85  76  66  74  64  64  78  90
 90  90  92  90  90  92  91  90  89  90  94  90  91  90  90  92
 90  92  90  90  90  93  90  90  92  90  90  90  90  90  97  98
 92  96  91  92  90  99  93  96 100  99  88  88  88  89  89  89
 96  99 100  90  88  89  88  90  88  89  89  90  96  89  91  92
 89  89  92  93  89  93  90  89  94  99  99 100  96  96  84  86
 80  72  60  67  65  67  82  76  69  79  84  83  83  83  83  83
 84  85  85  85  84  85  82  83  83  82  81  79  80  81  82  76
%EOF

ENTER LOG DATE (DD/MM/YR) : 31/07/79
ENTER SITE CODE (5 CHARS) : SHAFI

ENTER USER CODE (4 CHARS) : 4561
 ENTER JOB CODE (3 CHARS) : 214

   DATA LOGGED :31 JULY 1979
        LOGGER : DB-301/26
 SERIAL NUMBER : 1226
      BASELINE : 60 DB
 DYNAMIC RANGE : 64 DB
 SAMPLING RATE :  4/SEC
 TEST DURATION =   8: 0: 0

 DATA ANALYZED : 20 SEPT 1979
     SITE CODE : SHAFI
      JOB CODE : 214
     USER CODE : 4561
     THRESHOLD :  80 DB
 TOTAL SAMPLES =  115200
  STANDBY TIME =   0: 0:28

          TIME HISTORY ANALYSIS

NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
ARE BASED ON THE FOLLOWING:
100% DOSE = 90 DB / 8 HRS
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CUTOFF) LEVEL = 80 DB
  NUMBER OF COMPUTATIONS = 480
PERIOD =  1 MINUTES

TIME          LOGRA                    %DOSE
HOUR     CURRENT  CUMULATIVE     CURRENT  CUMULATIVE
   1        88.8        88.8      10.617       10.62
   2        93.6        91.6      20.645       31.26
   3        90.5        91.3      13.374       44.64
   4        94.2        92.1      22.246       66.88
   5       100.8        94.9      55.774      122.66
   6        93.7        94.7      20.782      143.44
   7        91.9        94.3      16.303      159.74
   8        88.5        93.8      10.209      169.95
MIN. COMP. =  60 DB          MAX. COMP. = 109 DB
ARITHMETIC MEAN =  84 DB
STD. DEVIATION =  15 DB
VARIANCE =225 DB
```

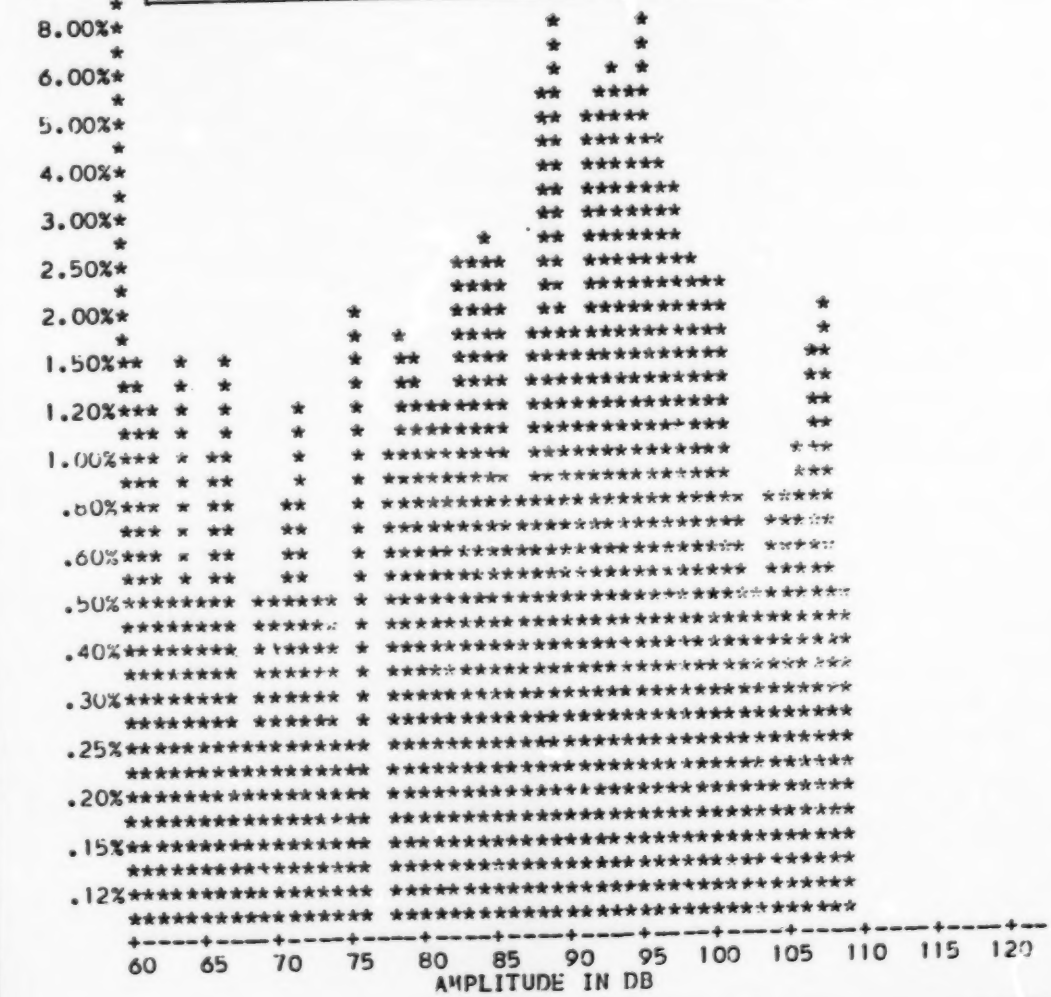
(31)

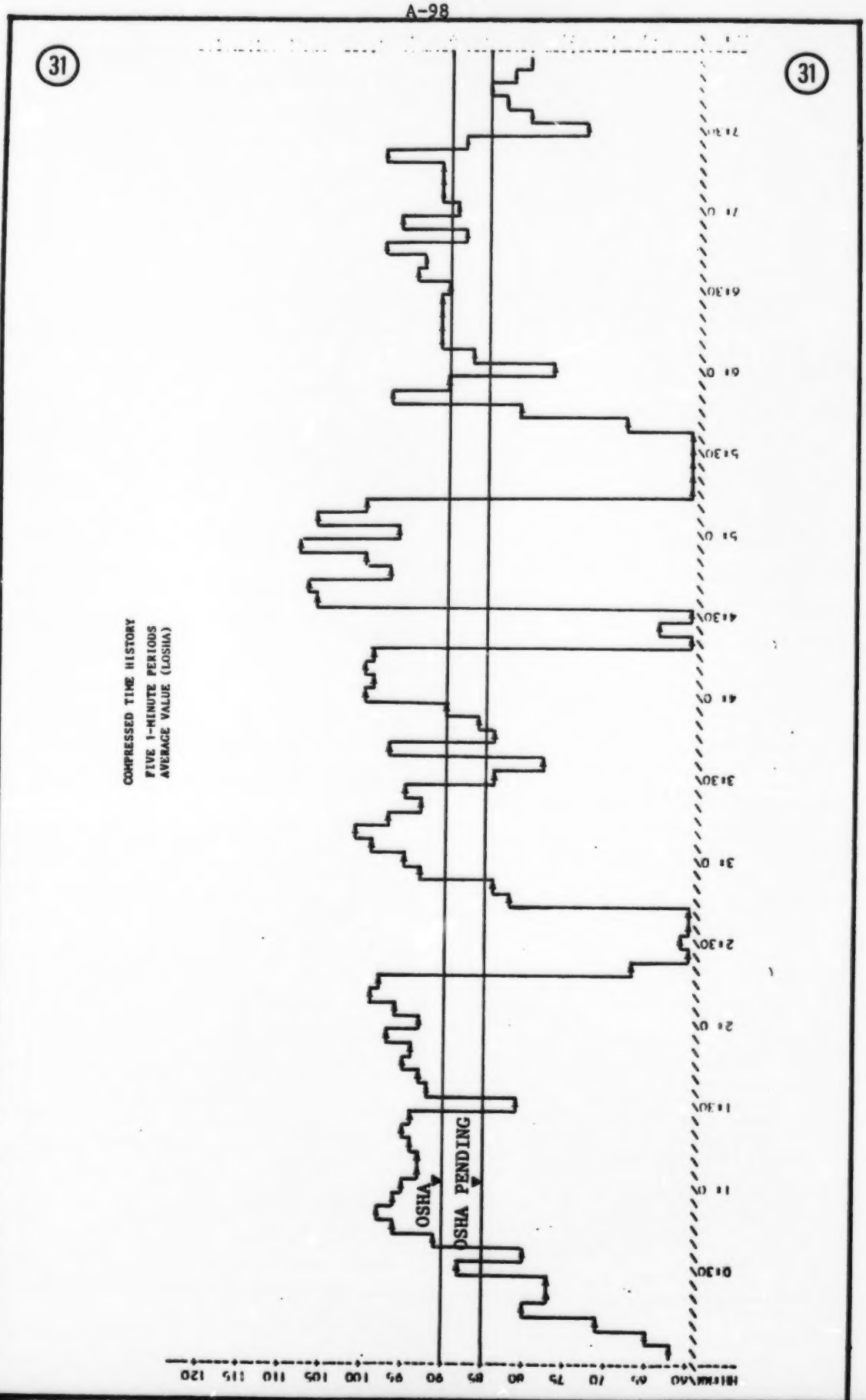
AMPLITUDE DISTRIBUTION

(31)

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
93	19.4	60 TO 64
15	3.1	65 TO 69
14	2.9	70 TO 74
20	4.2	75 TO 79
36	7.5	80 TO 84
53	11.0	85 TO 89
104	21.7	90 TO 94
96	20.0	95 TO 99
26	5.4	100 TO 104
23	4.8	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480



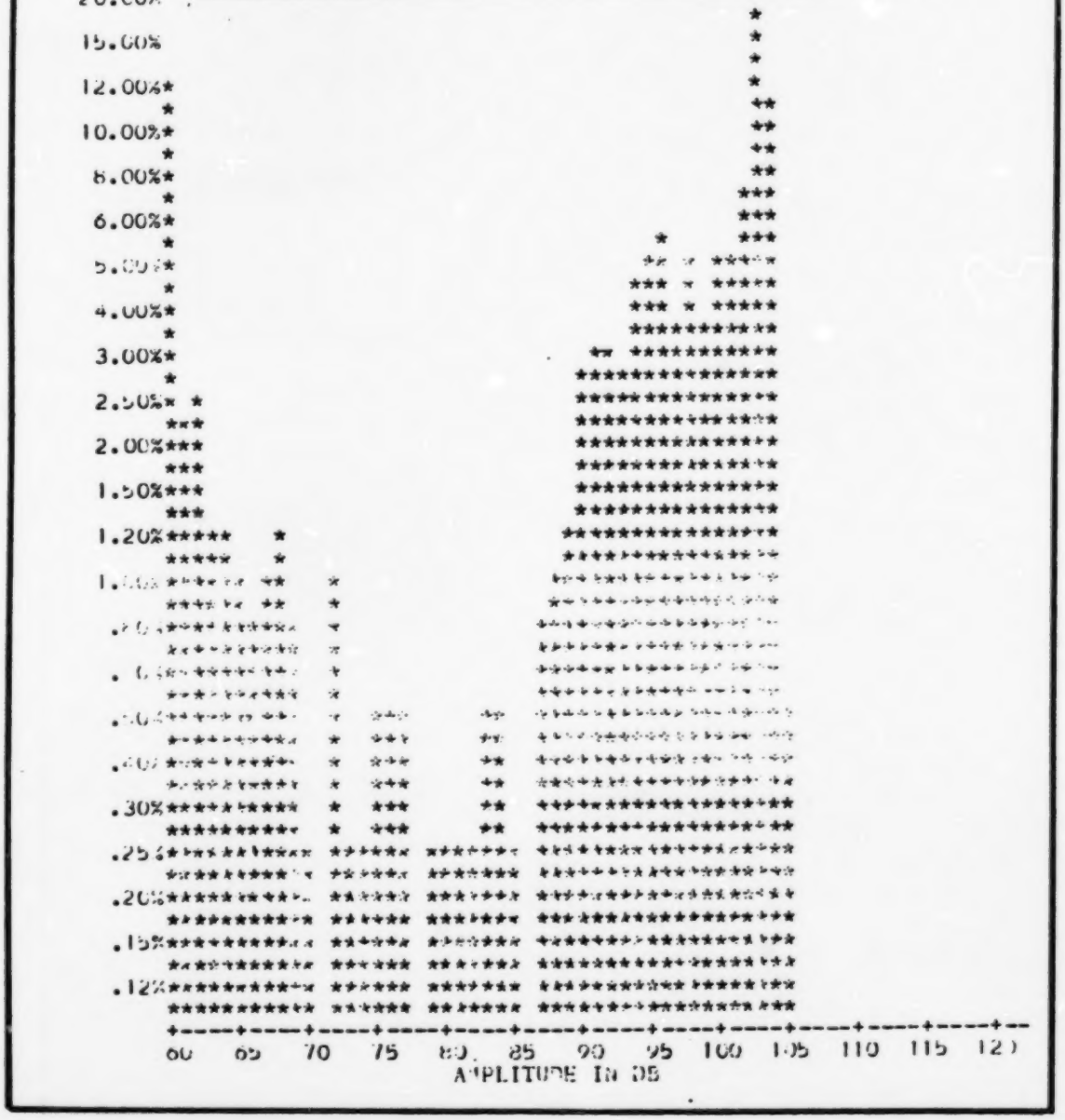

31
31
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING
dBA
65
70
75
80
85
90
95
100
105
110
115
120
0:30
1:00
1:30
2:00
2:30
3:00
3:30
4:00
4:30
5:00
5:30
6:00
6:30
7:00
7:30

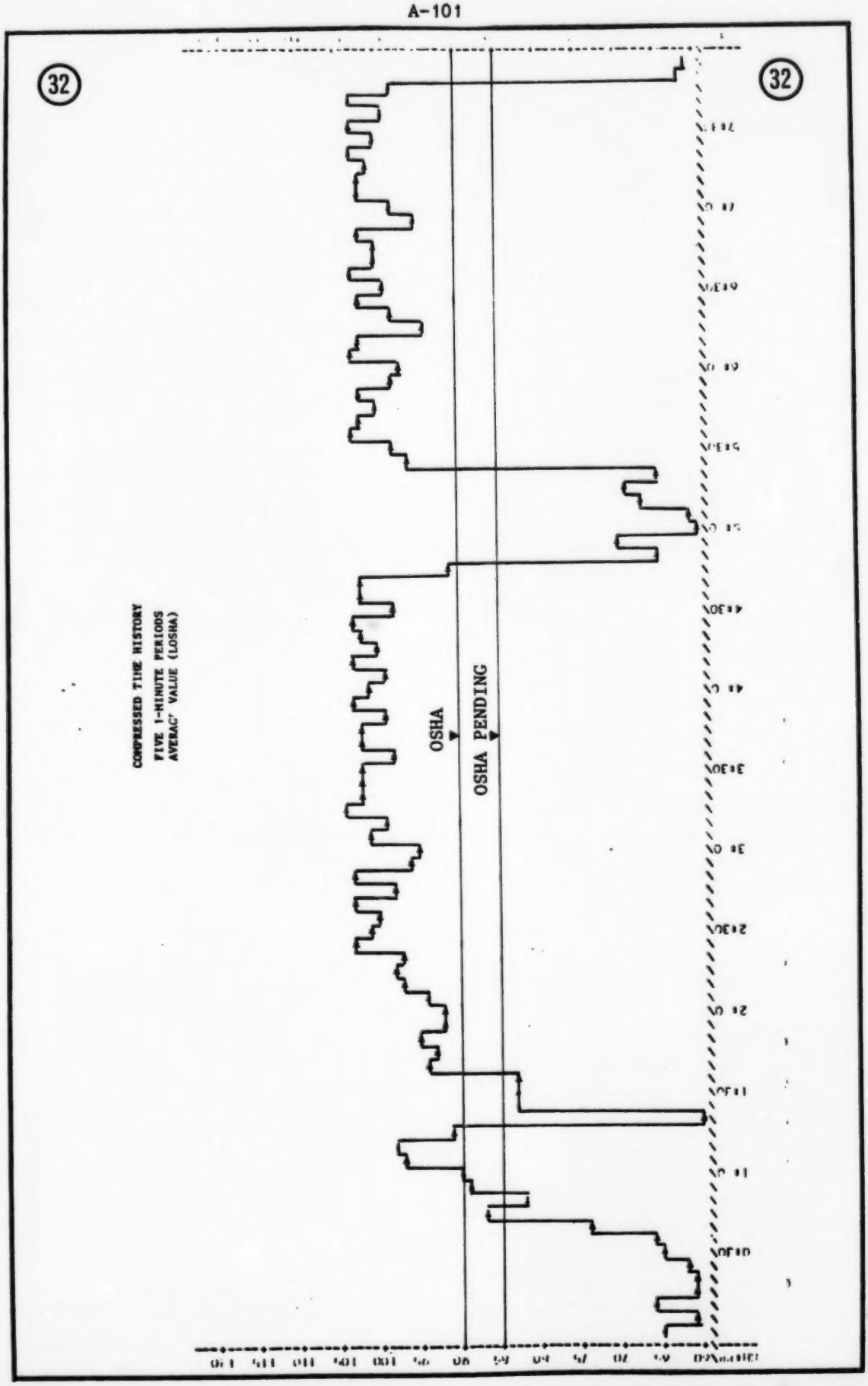
```
PLACE TAPE IN READER THEN TYPE A "SPACE" AND A "RETURN"
  1  26  80  1225   60   64    4    1
    108     115200  480
 68  61  62  62  68  60  62  60  60  62  61  61  74  60  60  62
 62  60  60  60  60  60  60  62  63  64  64  63  60  60  63  60
 60  68  69  66  72  60  61  61  60  64  67  77  82  65  84  96
 79  80  93  67  60  60  60  77  95  90  90  91  90  90  91  91
 90  93  98 100  98  95  98  98  98  99  99  97  95  90  76  72
 60  60  60  60  60  60  89  86  80  81  64  60  65  94  70  61
 60  84  89  85  92  95  95  94  93  91  97  90  94  93  99  97
 98  91  83  87  87  92  95  94  94  90  91  91  94  93  93  94
 92  96  94  96  96  98  99 100  97  96  98 100 100  97  98  96
 93  98 103 104 104 103 102 103 101  97 102  96  92  97 103 104
104 103 102 103 103  99  98  92  93 103 104 104 103 101 103 101
 94  95  96  92  96  97  92  96  94  95 104 100 101 102 101 100
 94  96 101 104 104 104 104 102 101 103 103 102  97  94 100 103
104 104 104 103  98 103 103 103  98  91  96  95  96 101 103 105
104 104 102 101 103 101 103  99  97  95  99 103 104 103 104 103
100 103 103 102  93  94  96  95 101 104 104 103 104 103 102 103
103 101  91  96  94  96  93 104 105 103 104 103 101 103 103 100
 92  98  94  95 102 104 104 103 103 103 100 104 100  98  95  83
 66  75  69  68  62  60  62  72  60  76  60  67  60  60  61  60
 60  60  60  60  63  60  64  75  60  60  60  60  73  68  61  72
 69  65  60  67  60  65  95  89  96 103 100  96 100  95  97 103
104 103 103 103 101  99 103 103 101  99  96  95 103 104 104 104
103  98 100  87  88  98 102 102 102  98  92  93  97 103 104 104
104 102 102 102 103 103  97  92  97  96  94  92  95  94  96 100
103 104 103 103  99 100 102 103 101  92  92 101 104 104 103 103
100 101 102 102  95  96  90  98 104 104 103 103 102 100 103 103
 95  88  88  89  96  91  91  99 104 104 103 102 102 100 100 103
103 103 101  91  98 103 102 104 103 102 103 102 103 102  95  90
 99 104 104 103 103 102 100  99 103 102  94  93 103 104 103 103
103 101 103  99  89  60  62  66  60  60  61  63  60  60  60  60
%EOF


ENTER LOG DATE (DD/MM/YR) : 16/07/79

ENTER SITE CODE (5 CHARS) : CC210
ENTER USER CODE (4 CHARS) : 7355

 ENTER JOB CODE (3 CHARS) : 211


   DATA LOGGED :16 JULY 1979          DATA ANALYZED : 13 SEPT 1979
       LOGGER : 2B-301/226                SITE CODE : CC210
SERIAL NUMBER : 1225                       JOB CODE : 211
     BASELINE : 60 DB                     USER CODE : 7355
DYNAMIC RANGE : 64 DB                     THRESHOLD : 80 DB
SAMPLING RATE :  4/SEC                TOTAL SAMPLES =  115200
TEST DURATION =   8: 0: 0             STANDBY TIME =   0: 0:27

          TIME HISTORY ANALYSIS

NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
ARE BASED ON THE FOLLOWING
100% DOSE = 90 DB / 8 HRS
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CUTOFF) LEVEL = 80 DB
  NUMBER OF COMPUTATIONS = 480
PERIOD =  1 MINUTES

TIME          LOSHA                        DOSE
HOUR    CURRENT  CUMULATIVE      CURRENT  CUMULATIVE
   1      77.6      77.6          2.242      2.24
   2      92.1      84.9         16.713     18.96
   3      99.3      93.9         45.598     64.55
   4     101.2      96.5         58.706    123.26
   5      99.5      97.2         46.534    169.80
   6      96.4      97.1         30.381    200.18
   7     100.3      97.6         52.474    252.65
   8      99.8      97.9         48.384    301.03
MIN. COMP. =  60 DB              MAX. COMP. = 105 DB
ARITHMETIC MEAN =  96 DB
STD. DEVIATION =  16 DB
VARIANCE =255 DB
```

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
82	17.1	60 TO 64
19	4.0	65 TO 69
7	1.5	70 TO 74
7	1.5	75 TO 79
7	1.5	80 TO 84
13	2.7	85 TO 89
65	13.5	90 TO 94
90	18.8	95 TO 99
188	39.2	100 TO 104
2	.4	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119
TOTAL NO. OF DATA POINTS = 480		

(32)

(32)




32
32
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING

(33)

```
PLACE TAPE IN READER THEN TYPE A "SPACE" AND A "RETURN"
  1  26  80  1225    60    64     4     1
     180     115200  480
 77  71  60  61  63  72  74  64  79  91  91  93  94  93  93  96
101  98  98  95  96  98  93  97  93  70  68  60  60  60  60  60
 60  60  60  60  65  60  61  71  68  72  91  86  85  85 100  96
 97  90  90  90  90  90  90  90  91  99  90  89  90  99  99  91
 89  92  93  91  93  92  93  90  89  89  89  89  95  93  93  92
 89  90  89  89  89  89  90  88  89  89  89  89  89  89  89  96
 91 104 100  94 102 100 100  61  72  94  95 105 103 104 101  94
 94 103  96 102  97  96  93  96  95 102 104 104 105 106 102 102
102 101 100 100  95  98  97  95 103 105 105 104 104  99 101 101
100 106 104  95  95  95  97 104 106 105 106 102  99 105 106 103
 95  95  95  97 102 104 104 105 104 104 103 105 104 102  91  94
 94  90  95  95 103 105 105 105 104 104 105 105 104 101  96  95
102 105 106 105 105 103 101 105 105 105  98  94  97  95  97 104
104 105 106 104 101 104 103 104 102  98  95  97  94  96 103 104
103 103 105 103 103 106 104  98  93  93  95  96 102 105 104 105
105 103 105 105 106 100  93  93  97  93  95 102 105 106 105 105
103 105 105  96  70  60  65  60  60  60  63  72  62  60  60  60
 61  63  60  60  60  64  60  60  60  61  60  62  64  60  60  62
 60  60  60  65  60  60  60  60  60  60  65  60  88  91 102 105
105 104  97 100 100 106 105 105 101 103 105 104 104 101  97 104
106 105 105 103 105 105 101 105 103  97 104 106 105 106 101  96
 92  99 103 101 103 103  99 105 101  94 101 106 105 106 104 102
105 104 104 106  99  93 101 107 105 104 105 102  99 102 105 103
105 104  96  99 106 105 103 105 105 100  96  92 104 104 106 102
 91  97 101 106 105 105 103 102 105 103 105 101 104 104  97  99
 99 101 104 102 105 103  91  97 105 105 104 105 103 103 105 104
104  98  89 101 106 104 105 104 101 102 105 104 105 100 101  99
105 103 102 105 103  99 104 104  89  84  67  70  69  72  71  72
 71  68  65  73  64  65  65  87  87  86  86  86  90  98 100  89
 87 100  95  93  92  91  88  85  97 100 100  93  84  66  63  82
DONE

ENTER LOG DATE (DD/MM/YR) : 17/07/79
ENTER SITE CODE (5 CHARS) : CC210
ENTER USER CODE (4 CHARS) : 7355
 ENTER JOB CODE (3 CHARS) : 211

   DATA LOGGED :17 JULY 1979          DATA ANALYZED : 14 SEPT 1979
       LOGGER : [illegible]                SITE CODE : CC210
SERIAL NUMBER : 1225                       JOB CODE : 211
     BASELINE : [illegible]                USER CODE : 7355
DYNAMIC RANGE : [illegible]              RECORD/SEC. : [illegible]
SAMPLING RATE : 4750.0                   TOTAL SAMPLES = [illegible]
TEST DURATION = [illegible]              SIZE OF FILE = [illegible]

              TIME HISTORY ANALYSIS

OCTAVE BAND SOUND LEVEL (O.B.S.L.) CALCULATIONS
AND BASED ON THE FOLLOWING:
LOWER LIMIT = 20.0 / 1.25
UPPER LIMIT (CENTER) FREQ. = 5.0
ANTILOG (CONSTANT) REF. LEVEL = 90.0 DB
   NUMBER OF COMPUTATIONS = 480
PLOT = 1 "INCHES

BAND          LOG'S                    OCTAVE
NUMBER    CURRENT   CUMULATIVE      CURRENT   CUMULATIVE
   1        89.9       89.9        12.381      12.38
   2        [illegible]  [illegible]  24.251      36.63
   3       102.5       97.5        60.128      97.13
   4       102.6       99.3        73.706     169.93
   5        94.6       98.4        24.191     203.12
   6       103.0       99.5        79.644     282.76
   7       102.1       100.1       67.194     352.06
   8        97.3       99.4        34.498     387.46
MIN. COMP. = 90 DB                MAX. COMP. = 107 DB
ARITHMETIC MEAN = 99.42
OVERALL LEVEL = [illegible]
VARIANCE = 23.76
```

(33)

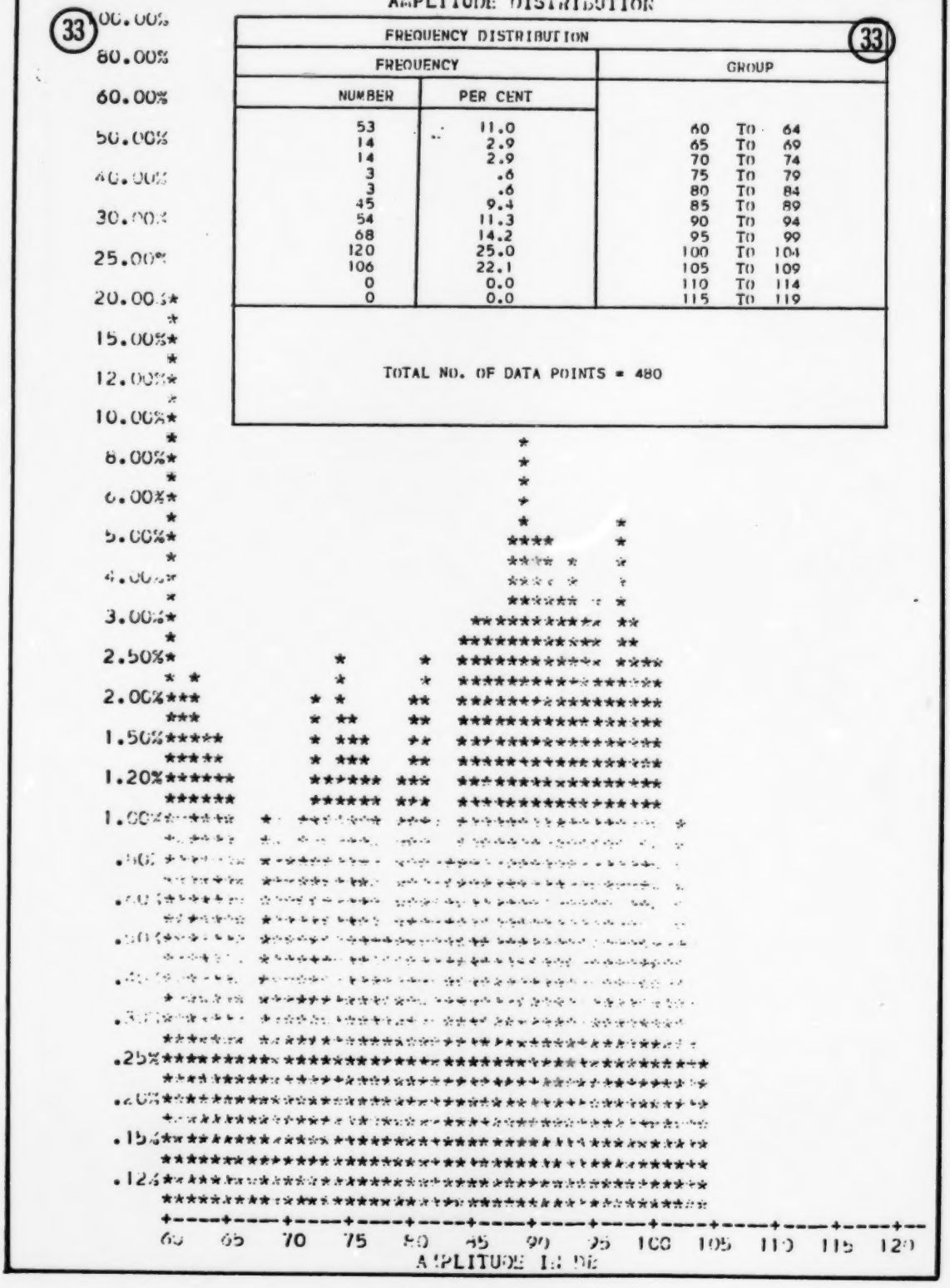
AMPLITUDE DISTRIBUTION

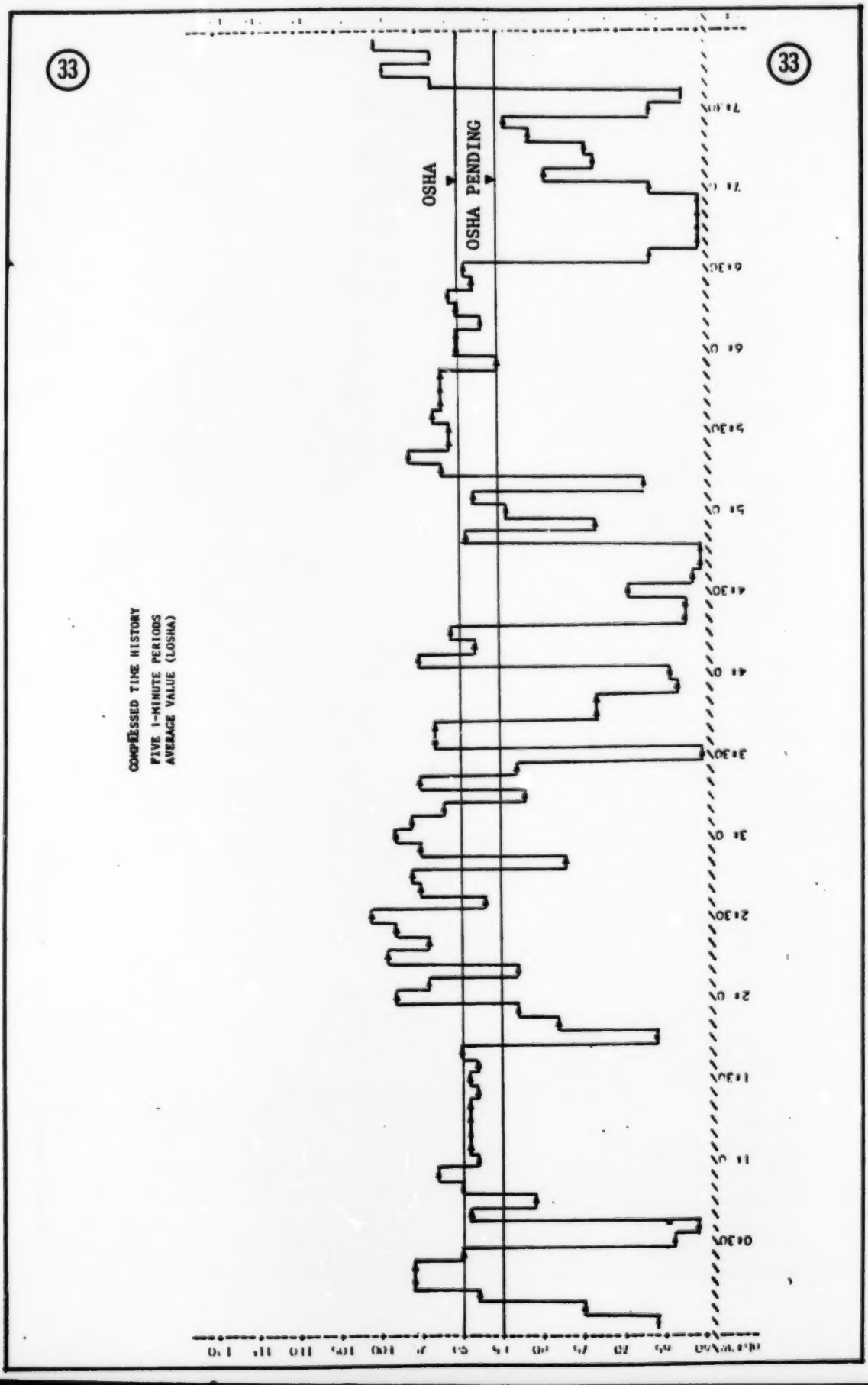
(33)

FREQUENCY DISTRIBUTION

FREQUENCY		GROUP
NUMBER	PER CENT	
53	11.0	60 TO 64
14	2.9	65 TO 69
14	2.9	70 TO 74
3	.6	75 TO 79
3	.6	80 TO 84
45	9.4	85 TO 89
54	11.3	90 TO 94
68	14.2	95 TO 99
120	25.0	100 TO 104
106	22.1	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480




33
33
OSHA
OSHA PENDING
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)

(34)

```
PLACE TAPE IN READER THEN TYPE A 'SPACE' AND A 'RETURN'
  1  26  80  1212    60    64     4     1
     102     115200  4H0
 61  77  60  60  60  60  60  60  60  60  60  70  64  67  60  60
 81  78  61  66  70  70  64  66  68  64  61  69  70  74  76  74
 76  71  67  72  63  70  65  69  65  66  68  67  66  67  75  69
 78  89  96  90  95  92  95  93  91  93  92  95  97  92  92  91
 91  93  81  81  82  H0  95  93  93  93  94  99  96 105 103  94
 95  96  98  94  95  95 102 107 108 103 104 108 107 106 107 106
108 106 107 106 105 104 106 107 107 107 107 105 104 101  92  92
 74  85  93  96  91  92  99 104  91  92  99  97  94  87  97  91
 90  97 100  96 100 103  94  94  97  97  96  92  95  98 105 108
105 107 107 106 108 106 106 104 105 104  99 105 102 105 103  98
100 104 105  98  96 102 103  96 102 100 101 100 103 103 104 103
102 104 105 105 105 102 104 105 105 105 105 105 106 106 105 107
105 107 109 106 107 106 107 104 107 105 104 106 103  97  98 100
103  97 105 108 106 100 102 100 101 103 104 101 104 105 105 104
 97 106 106 100  95 103  90  89  89  89  89  89  98 101 107 106
108 107 107  99  99  99  99  96 100  95  96 100 100 109  98 104
105 105 102 107 106 107 108 107 106 108 109 108 109 106 104 101
101  98  91  85  89  92  60  82  68  60  98  96 100  99  96  92
 90  90 103 102 102  92  84  65  60  60  60  60  61  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  62  71  81  89  93  99  93  92 101 107  94  92  91  94 108
109 109 111 112 112 111 110 111 109 110 110  99  89  89  89  89
 89  90  91 104 106  89  89  89  89 104 108 108 108 107 108 106 105
104 110 108 108 110 110  98  91  91  91 106 107 103  93  93  94
 93  93  92  92  92 100 107  93  93  93  93  93  93  93  94  94
 94 103 102  92  91  91  90  92 104 108 108 109 107 107 108 107
108 108 108 108 109 110 108 106 110 105 107 106 102 102 104 103
100 103  98 103 109 109 111 109  99 107 102  92  87  85  88  88
 88  89  85  81  78  79  73  72  74  72  75  76  73  74  76  72
 74  74  79  70  67  68  76  72  73  66  70  75  71  70  73  76
%EOF
```

(34)

```
ENTER LOG DATE (DD/MM/YR) : 25/07/79

ENTER SITE CODE (5 CHARS) : 00000
ENTER USER CODE (4 CHARS) : 7616
 ENTER JOB CODE (3 CHARS) : TRD
```

```
   DATA LOGGED :25 JULY 1979
        LOGGER : DB-301/26
SERIAL NUMBER : 1212
      BASELINE : 60 DB
DYNAMIC RANGE : 64 DB
SAMPLING RATE :  4/SEC
TEST DURATION =   0: 0: 0

DATA ANALYZED : 19 SEPT 1979
    SITE CODE : 00000
     JOB CODE : TRD
    USER CODE : 7616
    THRESHOLD : 80 DB
TOTAL SAMPLES = 115200
 STANDBY TIME =  0: 0:25
```

TIME HISTORY ANALYSIS

NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
ARE BASED ON THE FOLLOWING:
100% DOSE = 90 DB / 8 HRS
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CUTOFF) LEVEL = 80 DB
NUMBER OF COMPUTATIONS = 480
PERIOD = 1 MINUTES

TIME	LOGA		DOSE	
HOUR	CURRENT	CUMULATIVE	CURRENT	CUMULATIVE
1	82.0	82.0	4.141	4.14
2	101.4	96.9	61.122	65.26
3	101.8	98.9	63.771	129.03
4	103.7	100.4	83.072	212.11
5	101.2	100.6	59.341	271.45
6	100.5	100.6	53.862	325.31
7	103.3	101.0	79.239	404.54
8	99.6	100.9	47.209	451.75

MIN. COMP. = 60 DB
ARITHMETIC MEAN = 92 DB
STD. DEVIATION = 15 DB
VARIANCE =225 DB
MAX. COMP. = 112 DB

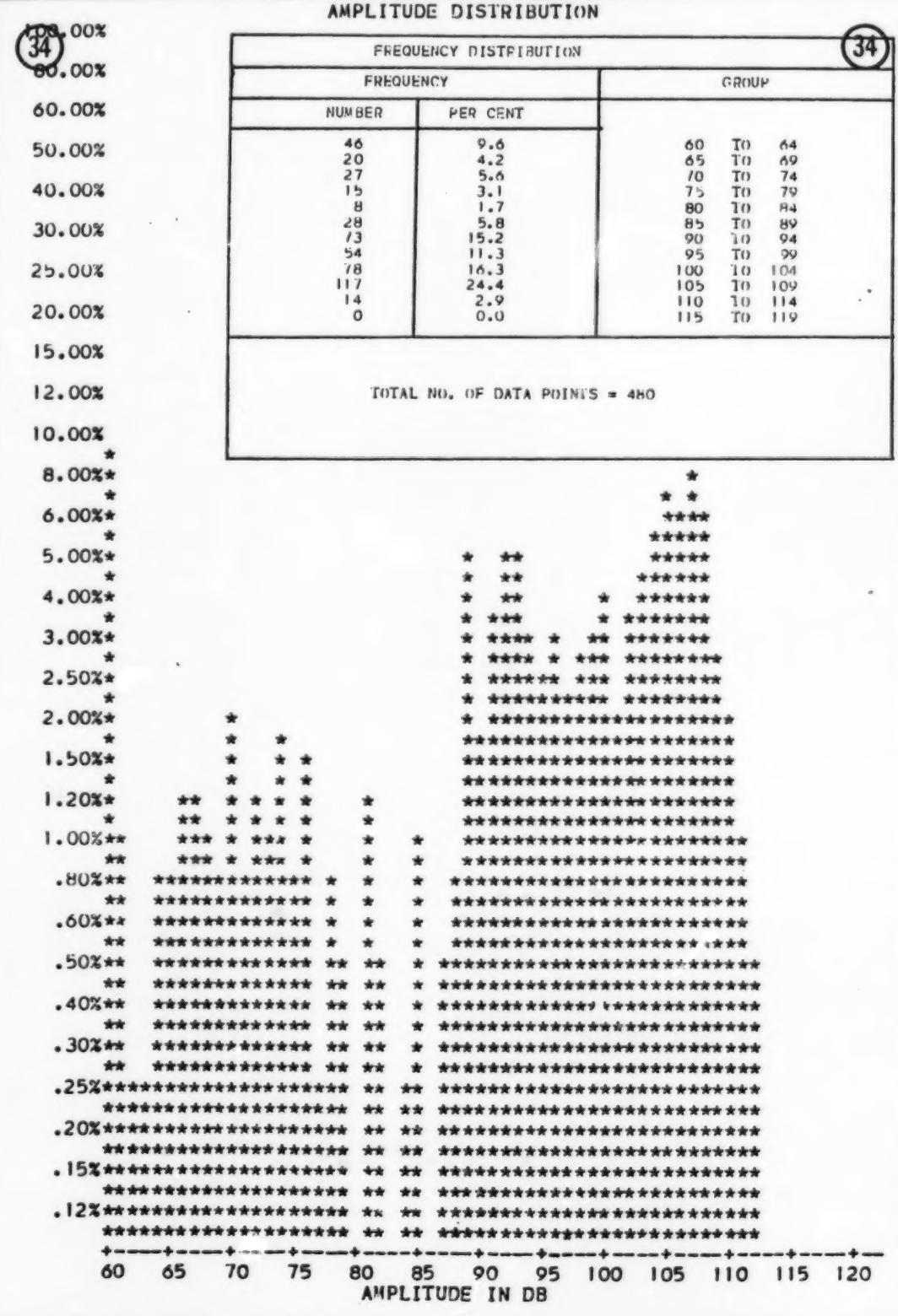
AMPLITUDE DISTRIBUTION

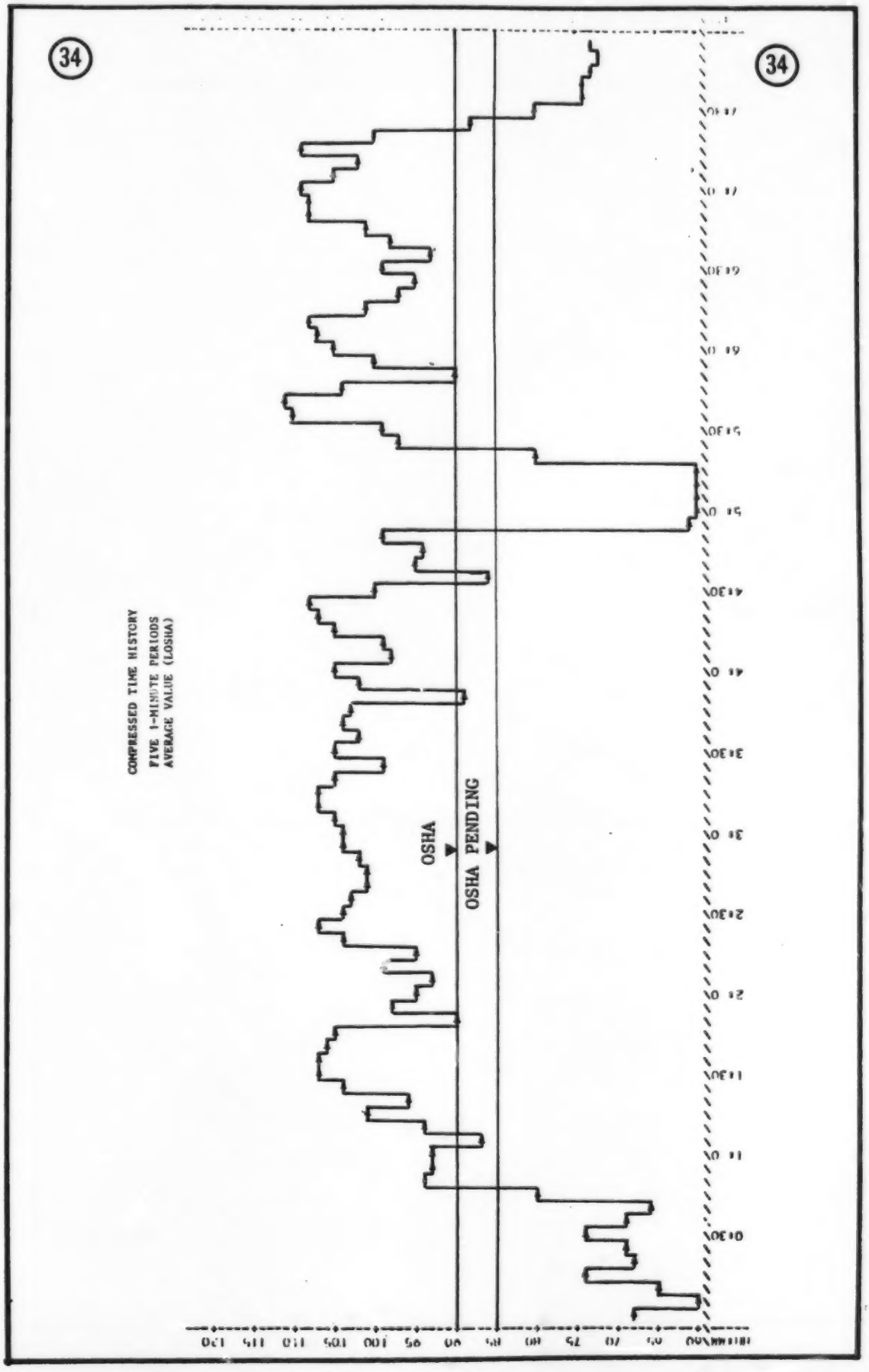
(34)

FREQUENCY DISTRIBUTION (34)

FREQUENCY		GROUP
NUMBER	PER CENT	
46	9.6	60 TO 64
20	4.2	65 TO 69
27	5.6	70 TO 74
15	3.1	75 TO 79
8	1.7	80 TO 84
28	5.8	85 TO 89
73	15.2	90 TO 94
54	11.3	95 TO 99
78	16.3	100 TO 104
117	24.4	105 TO 109
14	2.9	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480




34
34
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING
0:30
1:00
1:30
2:00
2:30
3:00
3:30
4:00
4:30
5:00
5:30
6:00
6:30
7:00
7:30
90
95
100
105
110
115
120

(35)

```
PLACE TAPE IN READER THEN TYPE A 'SPACE' AND A 'RETURN'
  1  26  80  1218    60    64    4    1
     109     115200  480
 73  64  64  60  60  60  60  63  60  60  60  61  60  62  63  61
 60  60  60  60  60  60  60  60  61  62  66  61  80  96  96  89
 79  80  88  85  94  96 100  97  88  87  93  98  99  97  99 100
 97  98  85  96  95  95 101 102  96  92  94 100  94  84 100 102
 98 101  95 100  97 100  97  65  61  69  62  60  60  61  70  63
 62  63  60  60  60  63  60  75  69  63  87  74  65  62  79  96
 95  98 101 100  91 103  92  98  94  91  93  94  97  96  96  75
 88  82  78  72  76  83  79  84  86  80  96  98  93  91  94 100
 91  77  84  72  75  61  65  71  84  85  93 101 103  97 102 100
 79  96  94  67  68  67  68  69  94  98  83  68  69  77  70  77
 89 101 100 101  99  99  98  95  97  99  87  97  69  89  72  60
 62  85  68  65  82  61  61  62  60  72  66  68  75  64  82  75
 80  85  96  95  93  97  98  99  71  87  69  67  66  70  69  66
 99  98  98 100  96 102  93  86  80  68  68  74  82  87 101  98
 97  99  90 100  99  97  87 100  94  85  84  88  85  91  96 100
 97  95  94  99  98  92  79  98  97  98  94  76  73  65  64  65
 68  65  64  63  64  61  60  60  60  61  60  60  61  63  60  60
 61  62  60  60  60  60  60  60  60  60  60  60  60  60  60  60
 60  60  60  61  60  60  60  60  60  60  60  60  60  60  63  60  76
 62  60  60  60  60  60  60  60  60  60  60  60  60  60  74  60  62
 67  64  66  61  61  62  67  65  66  62  65  69  65  62  95  98
103 101 100  94  75  69  69  97  98  99  95  98  94  97 101 101
 92  98  98  98 100  99 100 100  93  94  88  77  69  82  87  86
 92  96  99 100  95  95  78  94  85  99  94  94  94  93  82  62
 68  84  91  98  97 103  89  99  83  99  99  97  83  82  83  98
100  94  96  98  60  60  79  85  78  63  60  68  91  83  88  60
 60  92  97  97 100 101  93  85  84  82  83  69  93 102  95  92
 91  67  79  93  98  89  89  90  99  98  96  97  95  82  95  99
101  98 101  97 100 101  92  67  67  67  67  60  77  70  68  70
 74  67  71  81  99  99  99  99  91  98  99  93  98  95  98  98
%EOF
```

(35)

```
ENTER LOG DATE (DD/MM/YR) : 13/08/79

ENTER SITE CODE (5 CHARS) : 00000

ENTER USER CODE (4 CHARS) : 7409
 ENTER JOB CODE (3 CHARS) : GEO
```

```
   DATA LOGGED :13  AUG 1979
       LOGGER : DB-301/26
SERIAL NUMBER : 1218
     BASELINE : 60 DB
DYNAMIC RANGE : 64 DB
SAMPLING RATE :  4/SEC
TEST DURATION =   8 HR 0

DATA ANALYZED : 20 SEPT 1979
    SITE CODE : 00000
     JOB CODE : GEO
    USER CODE : 7409
    THRESHOLD :  60 DB
TOTAL SAMPLES =  115200
 STANDBY TIME =   0 HR 0 MIN 27 SEC
```

TIME HISTORY ANALYSIS

NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
ARE BASED ON THE FOLLOWING:
LOGS DOSE = 90 DB / 8 HRS
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CUTOFF) LEVEL = 60 DB
NUMBER OF COMPUTATIONS = 480
PERIOD = 1 MINUTES

TIME	LOGEA		DOSE	
HOUR	CURRENT	CUMULATIVE	CURRENT	CUMULATIVE
1	91.0	91.0	14.313	14.31
2	91.8	91.4	16.074	30.39
3	92.9	91.9	18.689	49.08
4	92.5	92.1	17.576	66.66
5	84.0	91.0	5.415	72.07
6	91.5	91.1	15.481	87.55
7	92.7	91.4	18.063	105.62
8	94.4	91.8	22.892	128.51

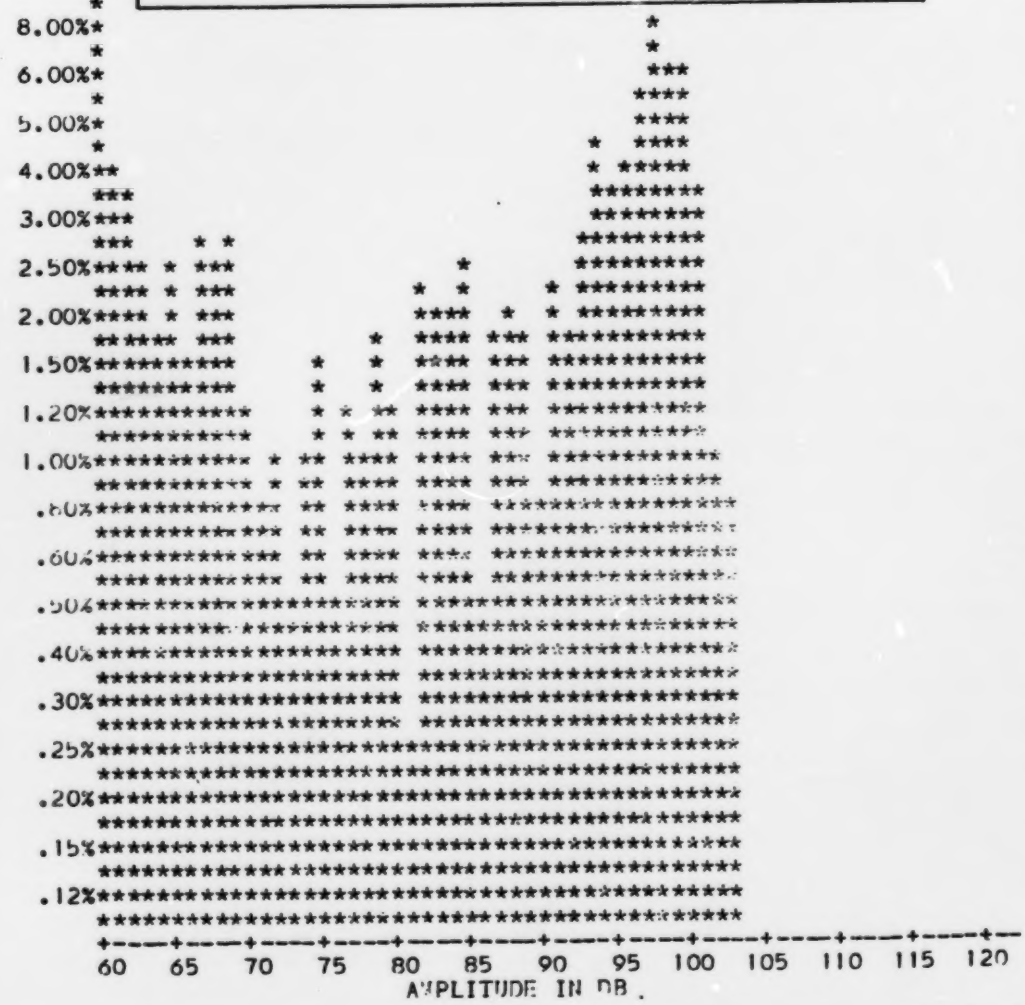
MIN. COMP. = 60 DB
ARITHMETIC MEAN = 81 DB
STD. DEVIATION = 16.10
VARIANCE =259 DB
MAX. COMP. = 103 DB

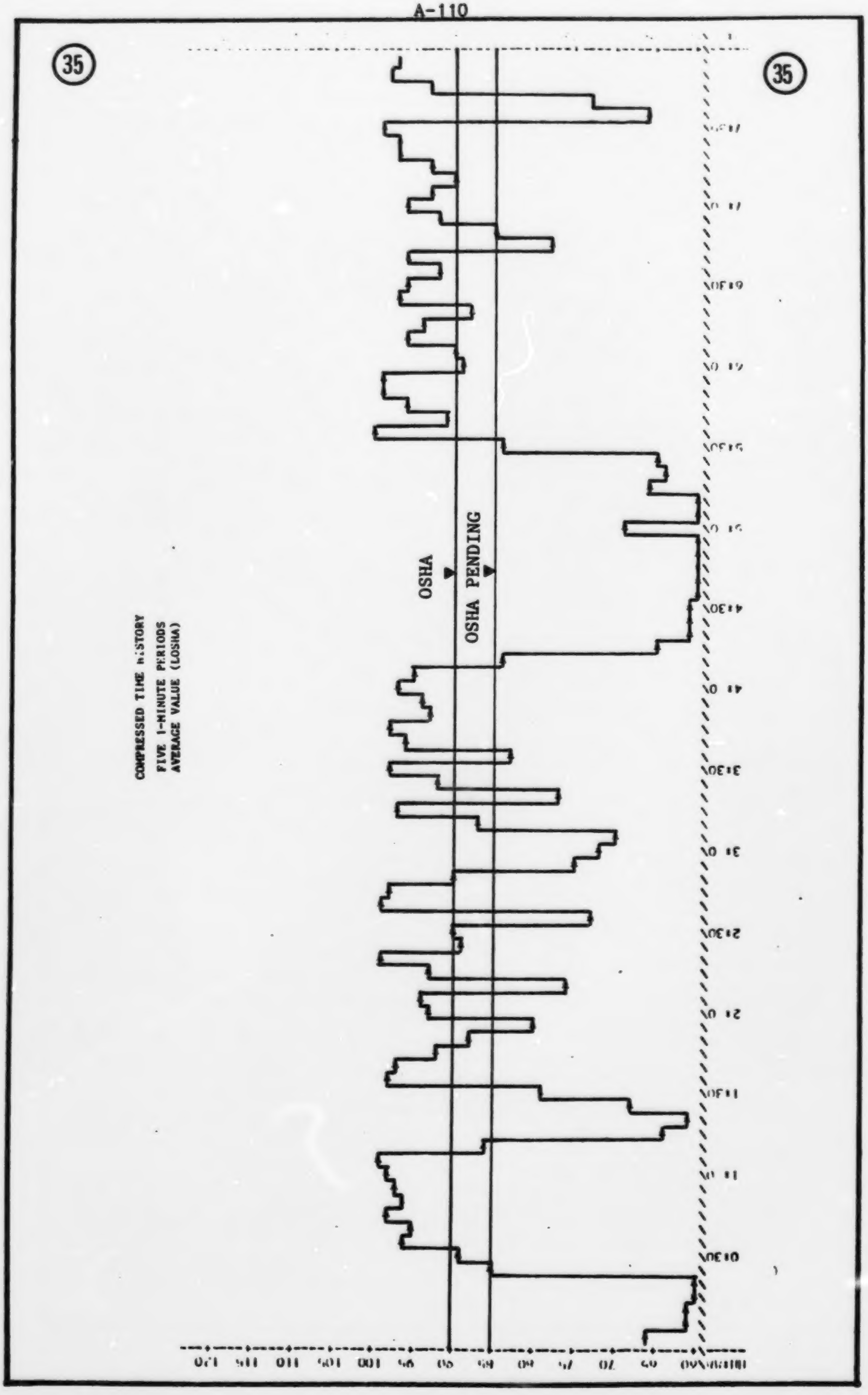
AMPLITUDE DISTRIBUTION

(35) (35)

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
124	25.8	60 TO 64
48	10.0	65 TO 69
18	3.8	70 TO 74
24	5.0	75 TO 79
31	6.5	80 TO 84
34	7.1	85 TO 89
48	10.0	90 TO 94
108	22.5	95 TO 99
45	9.4	100 TO 104
0	0.0	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480




35
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING
35

(36)

```
PLACE DATA TO BE READ WHEN TYPE A "SPACE" AND A "RETURN"
   1   26   80  1226     60     64      4      1
     396       115200   480
  60  60  66  61  69  60  61  60  69  61  60  64  74  61  75  82
  66  71  66  69  65  70  65  64  75  77  80  77  80  92  91  92
  93  93  93  96  95  97  99 100  97  96  99  98  97  95  78  80
  67  62  66  62  61  60  60  62  62  67  62  73  72  72  76  76
  76  71  76  80  67  72  76  72  72  62  60  63  63  71  68  74
  78  78  78  77  82  93  87  92  91 103  94  81  82  89  99  99
  88  90  91  90  92  89  88  89  87  87  87  85  86  90  94  90
  91  95  92  87  92  92  84  86  87  87  86  87  89  89  89  87
  90  90  90  85  85  89  88  87  97 100 101  96  96  97  91  87
  95  91  90  91  98  99  95  92  93  93  92  92  93  91  97  95
  90  94  91  87  86  89  88  89  95  93  89  89  96  95  96  99
  96  95  96 102 103 103 102 102  98  94  90  92  93  92  92  99
  89   ?   ?  95  96  90  96  93  88  91  94  95  99 105 107 106
  96  98  94  96  96  96  97  96  96  97  94  95  93  94  96  96
  95  94  93  94  93  96  92  90  92 100  87  87  89  86  98  99
  97 104  99  97  98  97  96  98  97  98 100 100  98  97  97  97
  98  98  97  98  97  97  98  93  95  96  95  83  85  81  65  60
  60  61  60  60  60  63  60  64  70  61  62  64  60  61  60  68
  60  60  60  60  60  60  61  60  60  61  60  60  60  71  64  73
  76  76  78  86  76  77  75  70  83  79  77  79  74  81  98 102
 100 101  99  95  91  88  91  86  88  78  88  82  87  87  85  84
  86  87  92  92  95  92  85  76  82  83  80  75  81  85  83  84
  80  83  82  83  83  86  84  84  82  79  81  81  76  77  81  84
  85  81  83  82  77  72  72  76  80  83  84  92  85  87  87  87
  82  81  88  92  92  93  88  89  83  89  90  91  88  83  83  84
  80  81  82  81  85  84  81  82  84  81  86  86  89  91  96  81
  81  83  86  84  86  87  84  84  83  83  84  81  81  81  83  84
  82  86  87  81  80  82  81  87  92  91  92  87  92  95  88  94
  87  95  80  79  77  77  78  76  80  80  83  89  99  92  97 100
  99  99 100  97  89  89  85  80  86  88  88  94  92  94  95  81
%EOF
```

(36)

```
ENTER LOG DATE (DD/MM/YR) : 13/07/79

ENTER SITE CODE (5 CHARS) : CC210
ENTER USER CODE (4 CHARS) : 2614
 ENTER JOB CODE (3 CHARS) : 211
```

```
   DATA LOGGED :13 JULY 1979          DATA ANALYZED : 12 SEPT 1979
        LOGGER : DL-301/26                 SITE CODE : CC210
 SERIAL NUMBER : 1226                       JOB CODE : 211
      BASELINE : 60 DB                     USER CODE : 2614
 DYNAMIC RANGE : 64 DB                     THRESHOLD : 80 DB
 SAMPLING RATE : 4/SEC                TOTAL SAMPLES = 115200
 TEST DURATION =   8H 0M 0S           STANDBY TIME =   0H 13M
```

TIME HISTORY ANALYSIS

NOISE EXPOSURE LEVEL (N.E.L.) CALCULATIONS
ARE BASED ON THE FOLLOWING
TOTAL TIME = 30 HR / 8 DAYS
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CUTOFF) LEVEL = 80 DB
NUMBER OF COMPUTATIONS = 480
PERIOD = 1 MINUTES

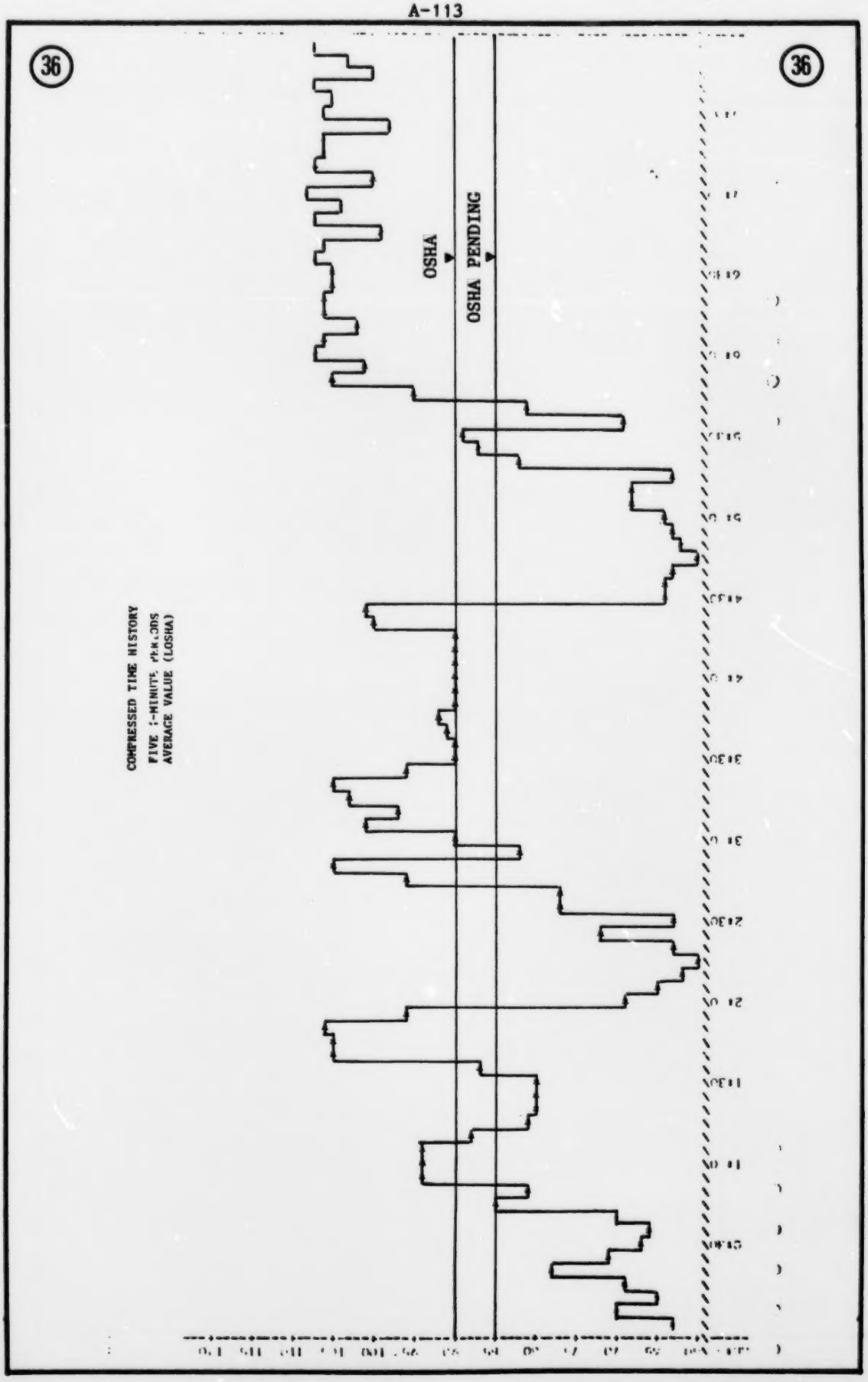
TIME	LOCAL		ZONE	
HOUR	CURRENT	CUMULATIVE	CURRENT	CUMULATIVE
1	87.6	87.6	8.923	8.92
2	89.3	87.9	9.33	18.73
3	93.3	90.2	19.691	38.42
4	90.3	90.3	38.144	76.56
5	92.2	92.3	17.023	89.58
6	88.3	91.7	5.417	95.00
7	92.9	91.1	6.743	101.74
8	90.1	91.0	12.627	114.37

MIN. CUM. = 60 DB MAX. CUM. = 107 DB
ARITHMETIC MEAN = 86 DB
STD. DEVIATION = 12 DB
VARIANCE = 143 DB

(36)

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP (36)
NUMBER	PER CENT	
53	11.0	60 TO 64
14	2.9	65 TO 69
19	4.0	70 TO 74
36	7.5	75 TO 79
79	16.5	80 TO 84
87	18.1	85 TO 89
82	17.1	90 TO 94
89	18.5	95 TO 99
19	4.0	100 TO 104
2	.4	105 TO 109
0	0.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480


36
36
OSHA
OSHA PENDING
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PEAKS
AVERAGE VALUE (LOSHA)

(37)

```
PLACE TAPE IN READER THEN TYPE A 'SPACE' AND A 'RETURN'
  1  26  60  1212    60    64     4     1
    1111      115200   480
  60  60  60  60  60  62  62  60  60  60  60  62  60  60  60  60
  61  63  60  60  63  60  60  60  60  64  61  60  60  60  60  77
  73  74  91  98  94  95  92  94  97  88  88  85  90  81  91  97
  99 100 101 101 102 102 102 103 100 102 100  94  95  97 103 102
 103 102  97  99 103 102 102 102 102 102 101 102  94 100 103 105
 104 105 104 103 102 102 102 102 104  95  99 102 101 104  98  96
  94  93  95  99  98 100  97  97  94  95  94 103 103 102 102  99
  94  95 100 103 101  99  99  96 100  99 100  97  96 100 100 101
  85  81  81  81  82  86  81  81  81  81  83  81  81  81  81  81
  81  81  81  82  81  81  81  82  81  81  81  81  80  81  81  81
  81  81  83  81  81  81  81  81  81  85  84  81  82  82  85  97
 100 101 101 101  80  94 102 102 100 101 101 100 101 102 103 104
 102 103 102 102 103 103 101 103 104 103 104 104 102  80  83  86
  80 100 101 101 102 102 104 101 106 104 104 100 101 100 101  96
  97 104 101 103 103 102 102 101 102 101  98  87  81  80  80  80
  80  80  80  80  80  85  90 104 104 102 102 103 104 103  95  77
  71  80  80  80  80  80  80  80  80  80  80  80  80  80  80  80
  80  80  80  80  80  80  80  80  80  80  80  80  80  80  80  91
  85  98 104 102  99 100 103 102 103 103 103 104 104 104 103 104
 102 102 104 104 104 104 104 104 101 105 100 100 100 101 100 102
 102 101 103 103 103 101 103 100 102 103 103 100 100 101 102 102
 104  98  93  94  94 100 101 105 100 102 104  86  83  88  91  85
  80  80  80  80  80  92 101  99 100  99 101 104 101 102 102 102
 102 102 102 102 101 101 102 105  99  96  96  93  93  84  74  80
  80  85  78  99  98 101 105 106 104 102 105 102  88  80  80  80
  80  80  80  80  92 105 103 104 105 105 104 104 105 106 105 106
 104 104 104 104 104 104 104 103 105 105 105 105 104 104 104 102
  86  95  96 101 105 102 100 103 101  97  98  96 103 104 101 110
 106 112 113 111 109 111  99  97  97  97  99 107 108  74  91  93
  89  92  90  88  90  91  97  87  92  89  92  92  86  76  70  80
%EOF
```

(37)

```
ENTER LOG DATE (DD/MM/YR) : 20/09/79

ENTER SITE CODE (5 CHARS) : 00310
ENTER USER CODE (4 CHARS) : 7759
 ENTER JOB CODE (3 CHARS) : 212
```

```
   DATA LOGGED :20  AUG 1979                DATA ANALYZED : 25 SEPT 1979
        LOGGER : DB-301/226                      SITE CODE : 00310
 SERIAL NUMBER : 1212                            JOB CODE : 212
      CAPACITY : 50 Hz                           USER CODE : 7759
  DURATION DATE : 20 AUG                          DURATION : 1
 SAMPLING RATE : 4/SEC                      TOTAL SAMPLES = 115200
 TEST DURATION = 48 HRS                      STANDBY TIME =  0.0167
```

TIME HISTORY ANALYSIS

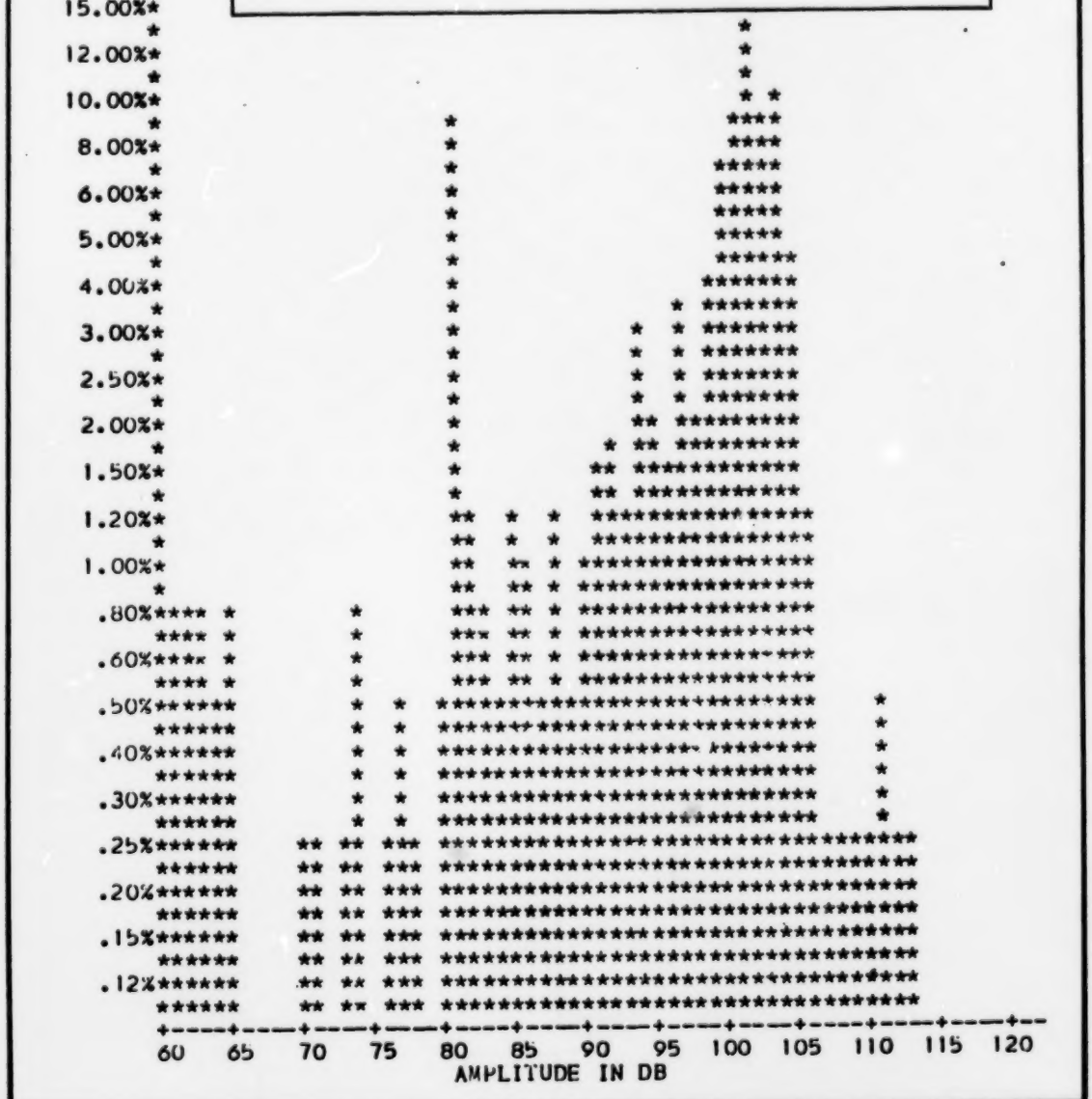
```
NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
ABE - ASSOCIATION FOR NOISE CONTROL
REFERENCE PRESSURE = 0.0002 DYNES/CM**2
INTEGRATION TIME = 1 SECONDS
TIME LEVEL (DB) = 10 LOG (1/T INTEGRAL (P**2/P0**2 DT))
  NUMBER OF COMPUTATIONS = 480
PERIOD =  1 MINUTES
```

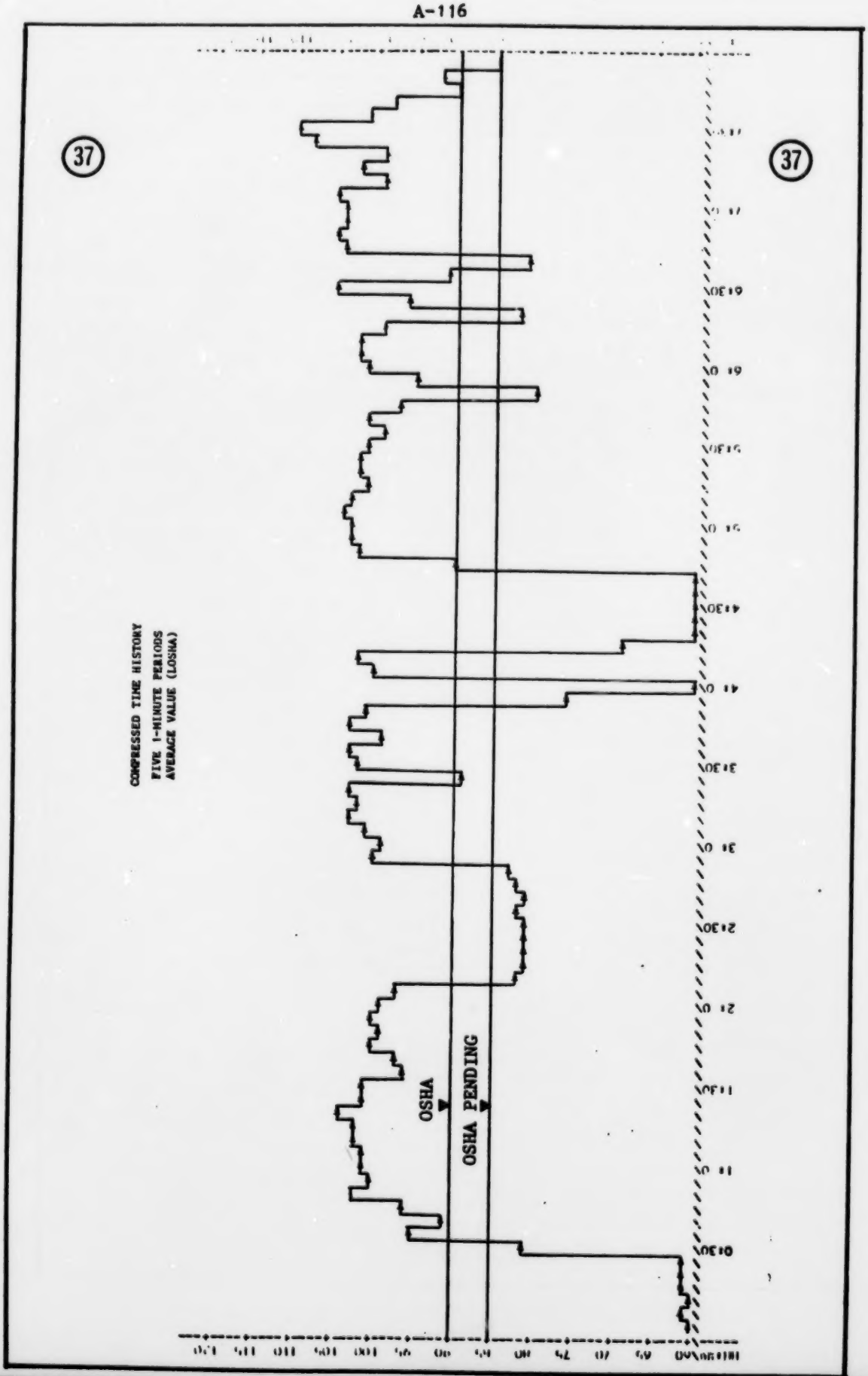
TIME PERIOD	INSTANTANEOUS	CUMULATIVE	INSTANTANEOUS	CUMULATIVE
1	91.6	91.6	15.067	15.07
2	101.5	97.4	53.983	69.05
3	90.5	95.7	14.175	84.03
4	100.6	97.3	54.532	137.55
5	94.3	96.8	22.360	160.11
6	100.6	97.6	54.426	214.54
7	103.7	98.1	54.947	269.49
8	103.2	98.8	67.629	337.18

```
MIN. LEVEL =  80 DB                MAX. LEVEL = 113 DB
ARITHMETIC MEAN =  90 DB
STD. DEVIATION =  10 DB
VARIANCE =  [illegible]
```

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
89	18.5	60 TO 64
3	.6	65 TO 69
6	1.3	70 TO 74
4	.8	75 TO 79
47	9.8	80 TO 84
18	3.8	85 TO 89
34	7.1	90 TO 94
52	10.8	95 TO 99
197	41.0	100 TO 104
25	5.2	105 TO 109
5	1.0	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480




37
37
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING
0:30
1:00
1:30
2:00
2:30
3:00
3:30
4:00
4:30
5:00
5:30
6:00
6:30

PLACE TAPE IN READER THEN TYPE A 'SPACE' AND A 'RETURN'

38 38

```
  1  26  80  1225   60   64    4    1
     16     115200  480
 81  74  60  61  60  60  60  66  63  66  60  60  60  64  63  60
 60  63  60  60  61  60  60  60  68  73  75  60  74  67  73  71
 72  70  65  73  72  73  73  73  76  72  75  73  65  74  77  73
 76  70  71  77  71  76  72  69  60  65  68  63  70  73  74  80
 77  71  74  75  67  79  77  70  64  70  71  67  68  64  67  65
 69  65  72  70  67  67  70  64  73  69  76  70  70  72  71  70
 70  62  60  67  60  60  67  62  62  65  68  74  65  66  60  69
 60  60  60  60  60  65  70  73  72  73  72  88  92  90  90  92
 91  91  91  94  93  93  93  92  91  92  92  91  95  87  93  90
 69  70  70  68  62  81  81  81  62  60  60  64  60  60  60  66
 60  84  70  60  60  60  60  60  60  60  90  91  94  91  90  95
 99 100  99  99 101 100 100  98 100  97  95 102  96  97 100 103
100  99  99  96  99  98  98  96  98  99 100  97  97  97  95  96
 98  99  93  95  97  96  97  96  96  96  87  93  96  97  99  98
 97  98 101  93  96  95  95  93  97  95  95  98  94  91  84  80
 76  67  69  69  81  96 100  99  98  97 100  99  97  96  99 100
102  98  96  92  97  99 101  99  99 101  96  79  60  60  76  90
 91  90  93  97  97  99 100 100  99  97 101 100  99  99  98  98
 99  99  99  98  98  99  99  98  95  94  96  97  97  97  97  97
 96  97  98  96  98  97  98  97  97  97  96  96  90  86  97  97
 98  97  97  98  96  98  97  97  99  98  99  98  96  97  97  97
 96  99  99  99  99 100  94  97  98  98  98  98  97  84  74  60
 60  60  68  60  60  60  60  60  60  60  60  62  60  61  60  60
 60  60  60  60  60  60  60  60  60  60  70  60  60  60  60  60  60
 60  60  60  60  60  60  60  60  60  60  60  60  60  60  60  63  60
 62  75  60  60  60  60  60  60  60  60  60  60  60  60  60  60  78
 89  95  97  99  99  99  99  98  99  97  96  96  97  97  95  96
 95  96  96  98  97  95  97  98  98  99  97  97  96  98 100 100
 99  99 100 100 101 101 101 100  97  92  93  94  94  94  96  96
 97 100 102 100  99 100 100 100 101 100  98 101 101 101 102 100
.END.
```

```
ENTER LOG DATE (DD/MO/YR) : 13/09/79
ENTER SITE CODE (5 CHARS) : 30300
ENTER USER CODE (4 CHARS) : 7953
 ENTER JOB CODE (3 CHARS) : 120
```

```
   DATA LOGGED :13 SEPT 1979          DATA ANALYZED : 27 SEPT 1979
        LOGGER : 55-301/25                SITE CODE : 30300
SERIAL NUMBER : 1225                       JOB CODE : 120
      BASELINE : 60.0                    USER CODE : 7953
 AVG. IGNORE : 64.0                    THRESHOLD : 67.0
 SAMPLING RATE : 4/SEC                 TOTAL SAMPLES = 115200
 TEST DURATION =  8 HRS 0 MIN          STANDBY TI    =  0 HR 0
```

TIME HISTORY ANALYSIS

NOISE EXPOSURE LEVEL (N.E.L.) CALCULATION

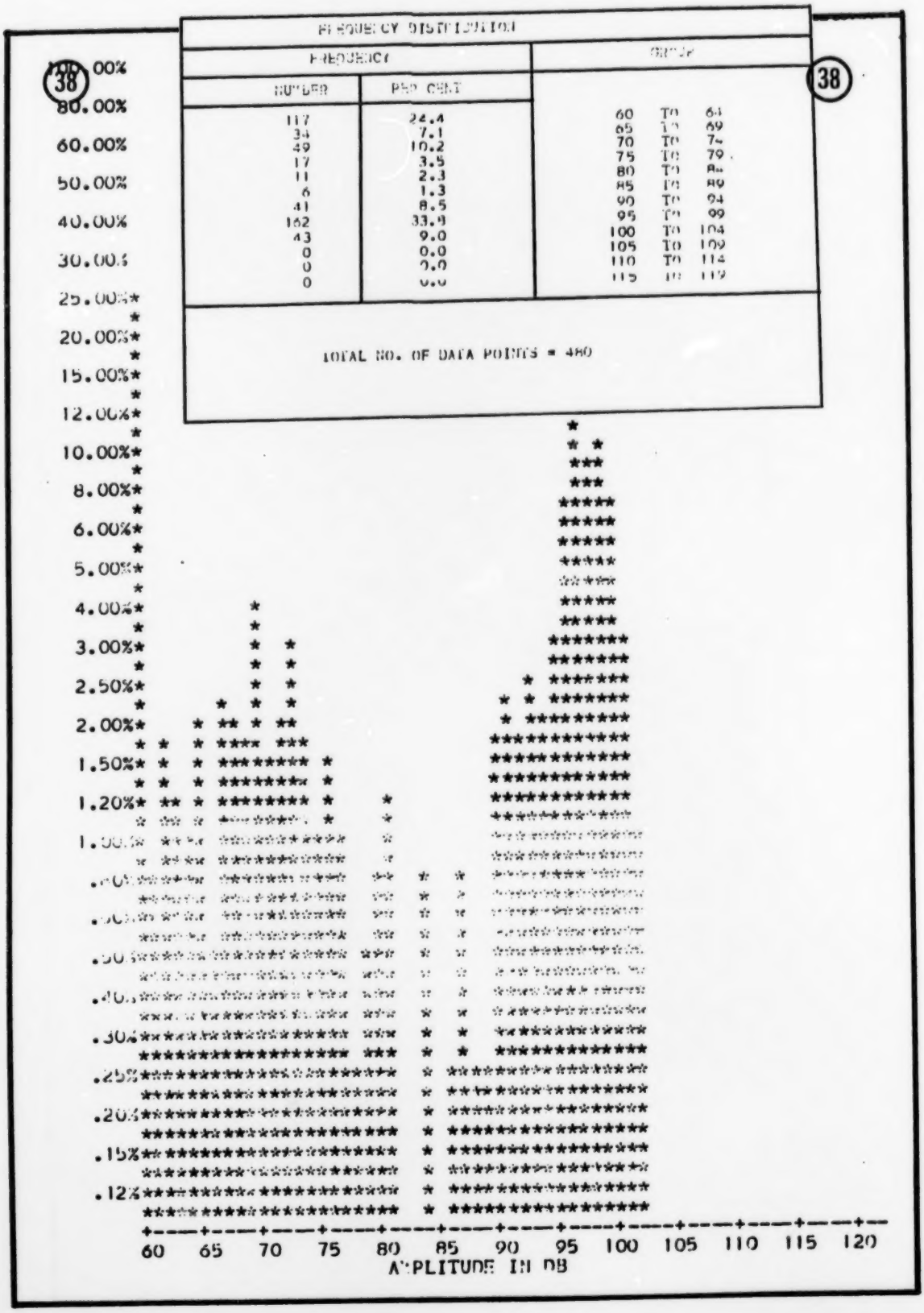
[illegible] = 480

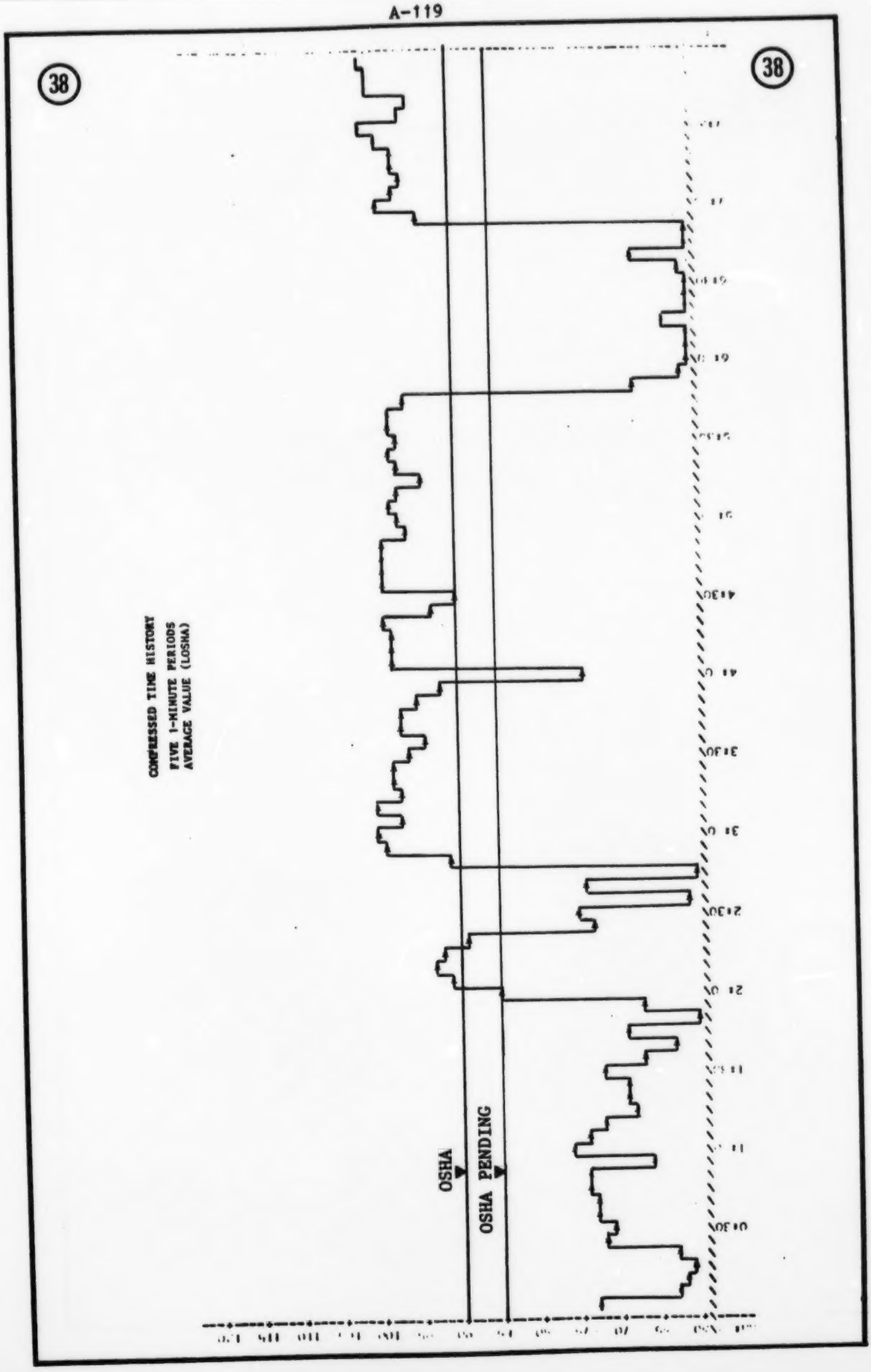
[illegible] = 4.00 DB

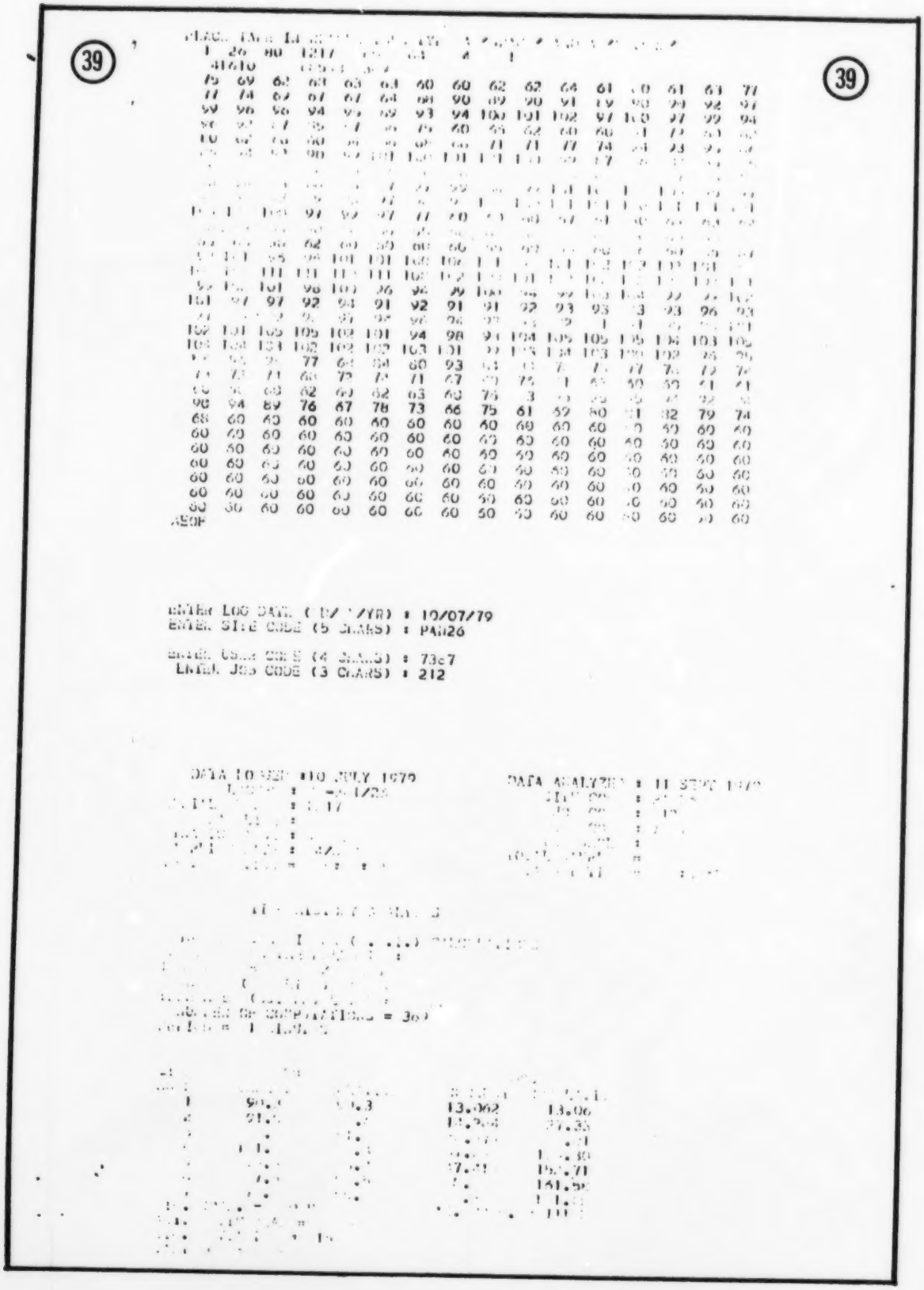
NUMBER OF COMPUTATIONS = 480
PERIOD = 1 MINUTES

TIME HOUR	NOISE CURRENT	NOISE CUMULATIVE	DOSE CURRENT	DOSE CUMULATIVE
1	70.1	70.1	.795	.80
2	69.9	70.0	.775	1.57
3	[illegible]	[illegible]	[illegible]	[illegible]
4	97.1	[illegible]	[illegible]	[illegible]
5	96.9	91.6	32.749	[illegible]
6	95.6	92.5	26.107	106.48
7	77.2	91.6	2.129	108.61
8	96.2	92.9	40.169	144.81

MIN. CORR. = 60 DB MAX. CORR. = 102 DB
ARITHMETIC MEAN = [illegible] DB
STD. DEVIATION = [illegible]
VARIANCE = [illegible]


FREQUENCY DISTRIBUTION
FREQUENCY
NUMBER
PER CENT
GROUP
38
38
117 24.4 60 TO 64
34 7.1 65 TO 69
49 10.2 70 TO 74
17 3.5 75 TO 79
11 2.3 80 TO 84
6 1.3 85 TO 89
41 8.5 90 TO 94
162 33.8 95 TO 99
43 9.0 100 TO 104
0 0.0 105 TO 109
0 0.0 110 TO 114
0 0.0 115 TO 119
TOTAL NO. OF DATA POINTS = 480
80.00%
60.00%
50.00%
40.00%
30.00%
25.00%
20.00%
15.00%
12.00%
10.00%
8.00%
6.00%
5.00%
4.00%
3.00%
2.50%
2.00%
1.50%
1.20%
60 65 70 75 80 85 90 95 100 105 110 115 120
AMPLITUDE IN DB


38
38
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING
0130
2130
3130
4130



39

39

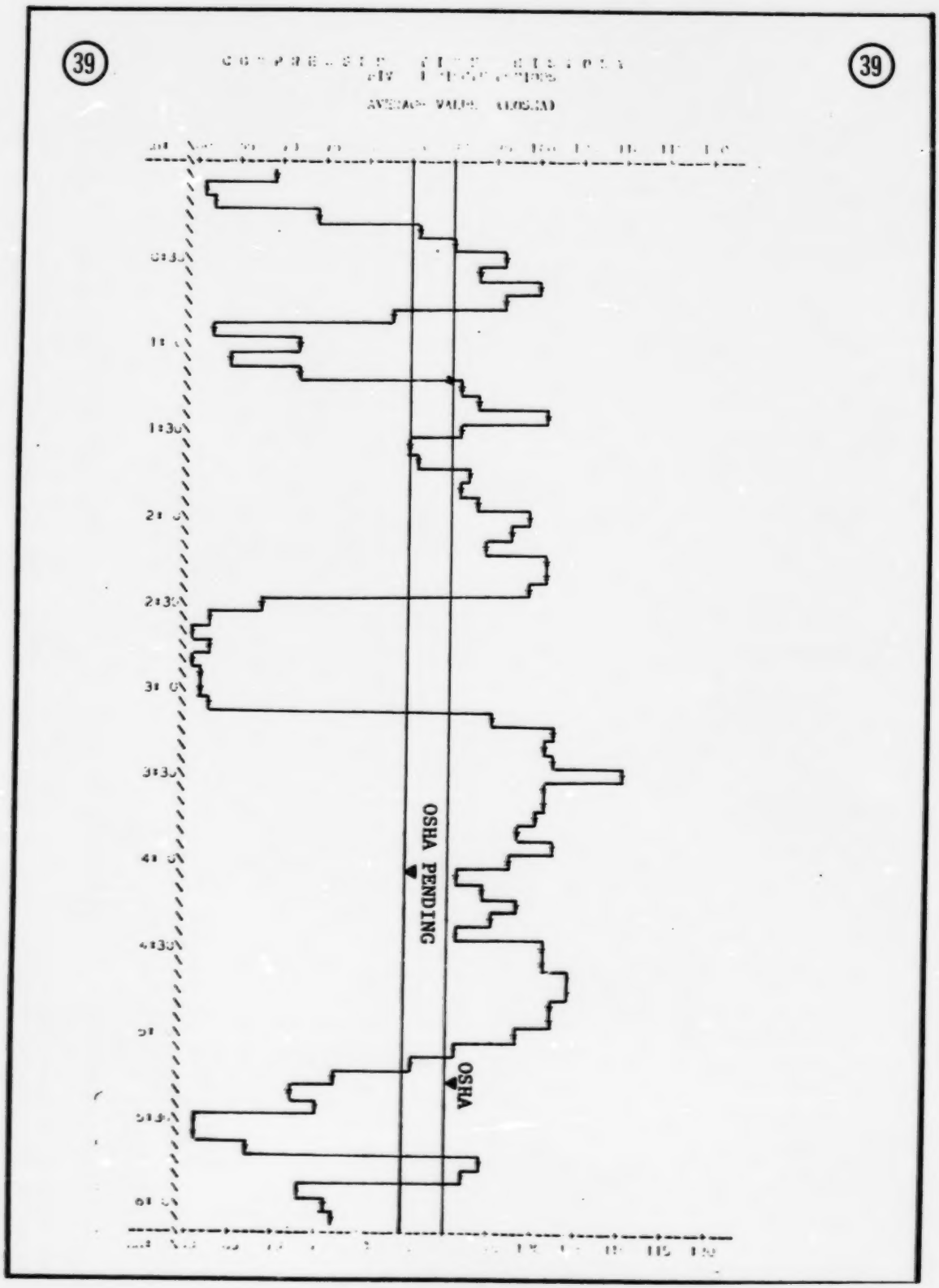
ENTER LOG DATE (DD/MM/YR) : 10/07/79
ENTER SITE CODE (5 CHARS) : PAN26

ENTER CONE SIZE (4 CHARS) : 73c7
ENTER JOB CODE (3 CHARS) : 212

AMPLITUDE DISTRIBUTION

FREQUENCY DISTRIBUTION		
FREQUENCY		GROUP
NUMBER	PER CENT	
184	38.3	60 TO 64
24	5.0	65 TO 69
14	2.9	70 TO 74
18	3.8	75 TO 79
11	2.3	80 TO 84
35	7.3	85 TO 89
49	10.2	90 TO 94
59	12.3	95 TO 99
73	15.2	100 TO 104
9	1.9	105 TO 109
4	.8	110 TO 114
0	0.0	115 TO 119

TOTAL NO. OF DATA POINTS = 480


39
39
OSHA PENDING
OSHA

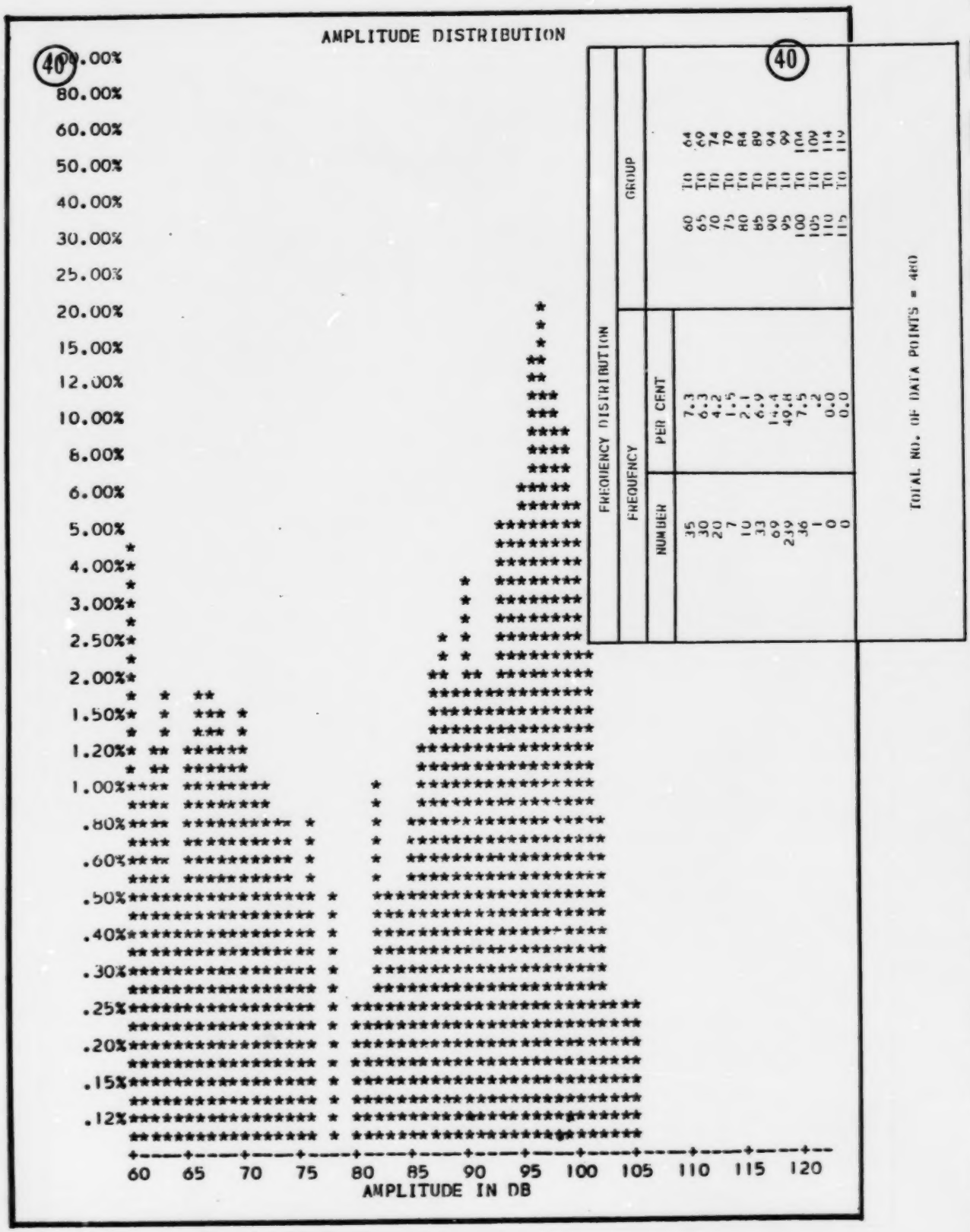
(40)

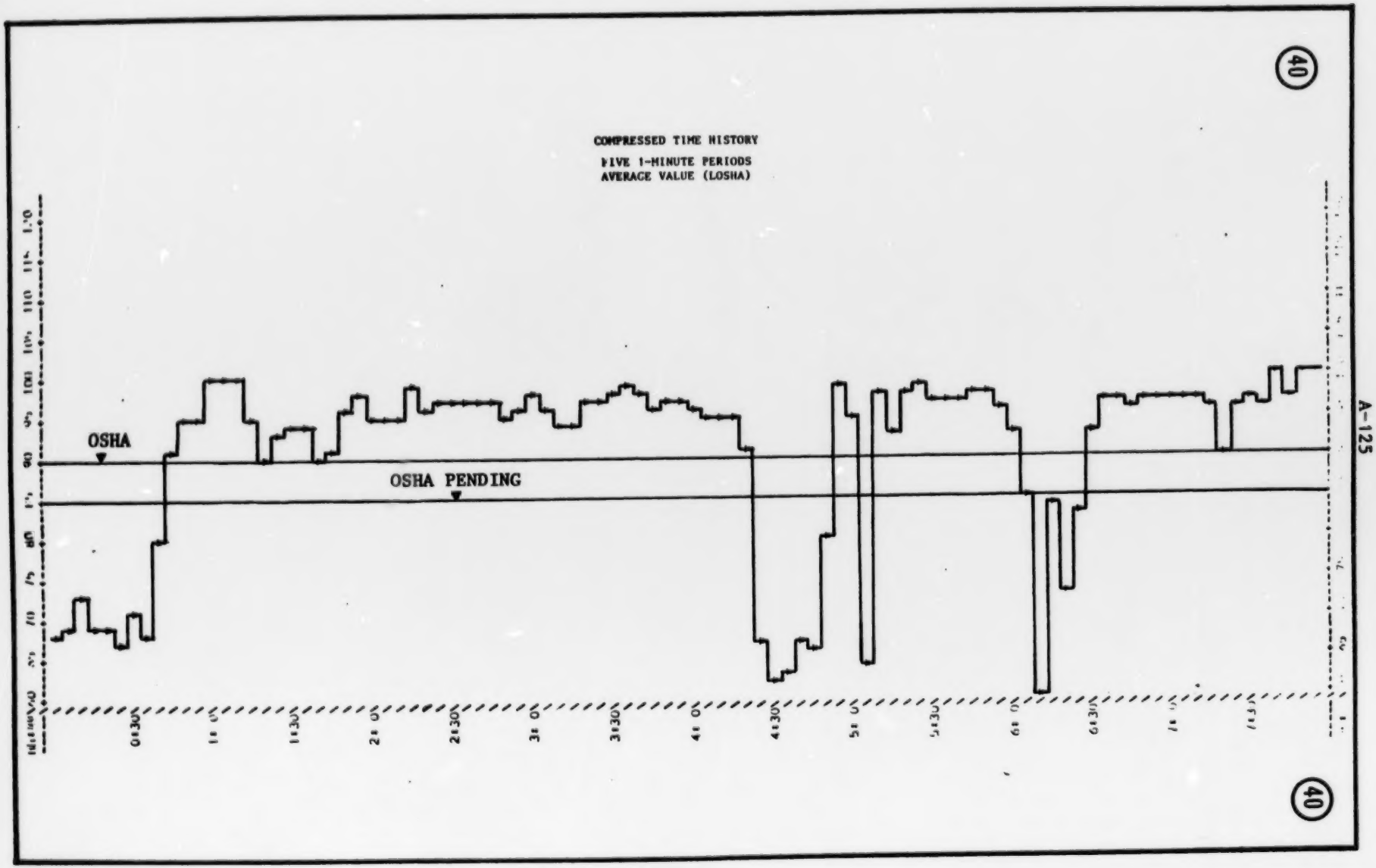
```
PLACE TAPE IN READER THEN TYPE A 'SPACE' AND A 'RETURN'
  1  26  80  1212    60   64    4    1
  10534      115200  480
 71  70  67  62  66  66  68  70  72  70  72  75  71  76  72  67
 66  75  68  62  74  69  64  68  67  63  65  65  71  66  67  70
 68  73  73  72  68  62  67  69  73  82  78  82  81  93  90  91
 88  90  90  95  94  99  92  93  92  92  93 101 101 100 100  99
100 101 100  99  99 101 100  96 100 100 102  99  97  93  89  90
 93  90  91  86  88  90  91  95  91  96  90  94  95  94  97  93
 90  97  95  93  90  87  87  88  95  94  90  91  92  88  78  93
 96  98 100  97  97  97  96 101 101  97  91  90  87  96  98  94
 89  93  94  93  95  99  91 100  99  96  99  98  98  98  98  95
 94  93  96  98  96  99  97  98  96  96  96  95  98  97  97  97
 97  98  98  97  97  97  98  97  95  98  97  92  97  93  95  96
 96  94  96  98  98 100  99  97  97  96  95  96  93  97  98  94
 89  88  97  94  88  89  98  97  94  96  99  96  98  99  96  95
 96  98  96  99  99  98  99 100  97 100  99  98  98  99  98  97
 97  97  93  95  95  98  96  98  97  96  98  97  97  97  95  97
 99  99  97  94  89  94  95  94  97  95  95  96  95  95  93  96
 96  93  94  96  97  96  82  80  76  74  65  63  60  60  61  65
 61  62  60  60  66  63  63  60  66  70  69  61  63  67  66  60
 70  60  69  71  83  93  84  90  87  97 103 104 105  95  61  64
 60  63  67  63  65  62  95  96 100  99  99  92  93  93  92  96
 96  96  98  99 100 100  99  99  99  98  97  98  98  97  96  97
 97  96  97  97  98  86  97  99  97  98  97  98  98  99  99  98
100  95  97  97  96  96  96  96  95  97  94  87  87  86  86  86
 87  68  60  60  60  60  60  74  86  85  85  85  84  60  60  60
 60  69  76  82  87  88  88  88  93  96  96  97  97  96  96  97
 97  96  97  98  97  96  97  97  97  95  94  97  99  97  97  98
 97  98  97  97  98  96  97  97  98  97  97  96  97  98  97  96
 99  98  96  97  96  97  93  96  93  89  89  90  90  91  97  95
 97  97  98  97  96  94  97  96  96  96  96  97 100  99 100 100
100  94  98  97  99  98  99  97 102 102 101 101  99 100 100 101
%EOF
```

(40)

```
ENTER LOG DATE (DD/MM/YR) : 26/07/79
ENTER SITE CODE (5 CHARS) : 2SHAF
ENTER USER CODE (4 CHARS) : 4356
 ENTER JOB CODE (3 CHARS) : 212
```

```
   DATA LOGGED :26 JULY 1979
        LOGGER : DB-301/26
 SERIAL NUMBER : 1212
      BASELINE : 60 DB
 DYNAMIC RANGE : 64 DB
 SAMPLING RATE :  4/SEC
 TEST DURATION =   8: 0: 0

  DATA ANALYZED : 19 SEPT 1979
      SITE CODE : 2SHAF
       JOB CODE : 212
      USER CODE : 4356
      THRESHOLD :  80 DB
 TOTAL SAMPLES =  115200
  STANDBY TIME =   0:43:53

          TIME HISTORY ANALYSIS

NOISE EXPOSURE INDEX (N.E.I.) CALCULATIONS
ARE BASED ON THE FOLLOWING:
100% DOSE = 90 DB / 8 HRS
EXCHANGE (DOUBLING) RATE = 5 DB
THRESHOLD (CUT-OFF) LEVEL = 80 DB
  NUMBER OF COMPUTATIONS = 480
PERIOD =  1 MINUTES

TIME          LOGA                    SDOSE
HOUR     CURRENT  CUMULATIVE     CURRENT  CUMULATIVE
   1       84.7       84.7       6.004       6.00
   2       96.0       92.3      28.555      34.56
   3       96.4       94.0      30.364      64.92
   4       96.9       94.8      32.583      97.51
   5       90.8       94.2      14.038     111.55
   6       96.5       94.6      30.793     142.34
   7       92.7       94.4      18.240     160.58
   8       97.4       94.8      34.973     195.55
MIN. COMP. =  60 DB                    MAX. COMP. = 105 DB
ARITHMETIC MEAN =  89 DB
STD. DEVIATION =  12 DB
VARIANCE =144 DB
```


AMPLITUDE DISTRIBUTION
40
80.00%
60.00%
50.00%
40.00%
30.00%
25.00%
20.00%
15.00%
12.00%
10.00%
8.00%
6.00%
5.00%
4.00%
3.00%
2.50%
2.00%
1.50%
1.20%
1.00%
.80%
.60%
.50%
.40%
.30%
.25%
.20%
.15%
.12%
60 65 70 75 80 85 90 95 100 105 110 115 120
AMPLITUDE IN DB
FREQUENCY DISTRIBUTION
GROUP
40
60 TO 64
65 TO 69
70 TO 74
75 TO 79
80 TO 84
85 TO 89
90 TO 94
95 TO 99
100 TO 104
105 TO 109
110 TO 114
115 TO 119
FREQUENCY
NUMBER
35
30
20
7
10
33
69
239
36
1
0
0
PER CENT
7.3
6.3
4.2
1.5
2.1
6.9
14.4
49.8
7.5
.2
0.0
0.0
TOTAL NO. OF DATA POINTS = 480


40
COMPRESSED TIME HISTORY
FIVE 1-MINUTE PERIODS
AVERAGE VALUE (LOSHA)
OSHA
OSHA PENDING
40